

Austria	Spd. 15	Ireland	Rs 1000	Philippines	Pes. 20
Bahrain	Rs 5000	India	Rs 1100	Portugal	Ecs. 65
Canada	Cdn. 250	Indonesia	Rs 1500	S. Africa	Rands 6.80
Denmark	Dkr. 2.50	Japan	Yen 1500	Singapore	S\$ 4.10
Egypt	Lsd. 1.00	Lebanon	Ls. 1.00	Spain	Pts. 25
Finland	Fmk. 5.00	Liberia	Ls. 1.00	Sweden	Sk. 2.50
France	Fr. 5.00	Malta	Mrs. 4.25	Tunisia	Db. 0.000
Germany	DM 2.00	Morocco	Db. 0.00	U.S.A.	U.S. \$ 1.00
Greece	Dr. 2.00	Netherlands	Fl. 2.25	U.S.A.	Db. 6.50
India	Rs. 1.00	Nigeria	Nas. 5.00	U.S.A.	\$1.50

# FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

Monday February 7 1983



IMF meeting:  
a \$500bn game  
of poker, Page 12

No. 28,993

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## NEWS SUMMARY

### GENERAL

Beirut  
faction  
fighting  
worsens

Fighting between Druze and Christians in the hills east of Beirut intensified yesterday as a planned truce-arranged ceasefire collapsed. In the past week, about 60 people have been killed.

A Druze officer said the Christian Phalangists had been driven out of the strategic town of Aley. Page 2.

In Beirut, a Palestine Liberation Organisation official said that Palestinians and Lebanese might have to adopt their own security measures, following the Saturday bombing at a PLO office in which 20 people died.

### China accuses

Within hours of the departure from Peking of U.S. Secretary of State George Shultz, China accused the U.S. of not abiding by the terms of the accord on limiting arms sales to Taiwan. Shultz optimistic. Page 2

In Seoul, Mr. Shultz promised continued U.S. military support for South Korea.

### Haughey's future

Fiamma Fail MPs today debate a motion calling for the resignation as leader of former Premier Charles Haughey, who says he will abide by the decision.

### Eta apologises

Eta, the Basque separatist movement, claimed responsibility for an attack on a Bilbao bank, and apologised for the death of two workers and the wounding of seven.

### Gandhi boost

Indian premier Indira Gandhi's Congress(I) Party was heading for a decisive victory in Delhi metropolitan council and municipal corporation elections last night. Page 2.

Police opened fire on rioting anti-election demonstrators in five towns in the north-eastern state of Assam.

### Dacca violence

More than 150 were injured in street fighting in Dacca, Bangladesh, between rival student factions using iron rods, bamboo sticks, and bricks.

### Envoy replaced

The Soviet Union said it was replacing its permanent representative at the United Nations and, at some Geneva-based international organisations.

### Refugees rescued

More than 20,000 refugees stranded on the Thai-Kampuchean border were evacuated to safety in Thailand as fighting between Vietnamese-led troops and Kampuchean guerrillas subsided.

### Missionaries at risk

Five Indians who admitted trying to convert missions to Christianity in the United Arab Emirates face up to two years in jail, said local officials.

### Zimbabwe drive

Zimbabwe's Government said that five Indians have been killed in a campaign against terrorists in Matabeleland, and 14 captured. Page 2.

### Seeds of success

Cloud seeding by Soviet authorities has prevented 20 cm (eight inches) of snow falling in Moscow this winter - and saved millions of rubles in clearing costs, reported newspaper Komosomolskaya Pravda. The seeds - granules of carbonic acid, were dropped by aircraft.

### Briefly

Pope John Paul II is to visit El Salvador in a Central American tour in early March.

Mrs. Erika Hillier is to retire as vice-chairwoman of Combe Bay, near Bath, England, at 102.

### BUSINESS

## Chinese expect \$1.9bn deficit

BY J.D.F. JONES AND BERNARD SIMON IN JOHANNESBURG

## Two-tier rand ends as S. Africa eases exchange controls

South Africa yesterday ended 22 years of exchange controls for non-residents by abolishing the dual rate for the rand in what Mr Owen Horwood, the Finance Minister, called "a giant step forward" for the economy.

The unexpected move, which takes effect today, means foreigners will be able to transfer capital into and out of the country at will under a single exchange rate. Previously, they were restricted to the financial rate - or blocked rand - which has traded over the past year at a discount to the commercial rand of between 8 per cent and 30 per cent.

A prime objective of the decision is to drain a huge build-up of liquidity in the economy. A major factor in this has been a dramatic surge in the gold price from less than \$300 an ounce last June to its recent levels of around \$500.

The move is in line with what the International Monetary Fund (IMF) - which lent South Africa \$1bn last November - would like, although Mr Horwood denied that it had been requested by the IMF.

Financial markets in Johannesburg and abroad will today undergo what Mr Horwood described in his announcement in Cape Town at the weekend as "a number of adjustments". He added that the effects of the move on share prices, exchange rates, interest rates, money and

credit were impossible to predict accurately.

First casualties are expected to be the commercial rand, which could fall to anything between 85 and 90 U.S. cents, depending on the Reserve Bank's managed float policy (it closed last Friday at 92.9 cents), and the Johannesburg Stock Exchange, where brokers fear a 10-20 per cent initial downturn after six months of booming share prices.

The financial rand is South Africa's investment currency which dates originally from 1961, when the Sharpeville Massacre provoked a flight of capital out of the republic. It can be used for venture capital as well as portfolio investment.

The dual rate has therefore acted as an incentive to foreign investment in South Africa - the financial rand was at 71 cents last Friday, a discount of 17 per cent. It has also been a deterrent to disinvestment, because such funds can only leave the country through the financial market, whereas dividends are remitted at the commercial rate.

The immediate question must be whether the new system will lead to an unexpectedly large exodus of

Continued on Page 14

Analysis, Page 2; Lex, Page 14

## Japan drafts new law to restructure industry

BY CHARLES SMITH, FAR EAST EDITOR, IN TOKYO

JAPAN's Ministry of International Trade and Industry (MITI) has finished drafting a comprehensive law designed to help the restructuring of specific depressed industries as a natural precaution against a divergence of European currencies.

Believed to be the only piece of legislation of its kind in any major industrial country, the law will enable MITI to call for the preparation of capacity scrapping programmes by seven designated industries.

The D-Mark showed little overall change on the week ahead of next month's general election, although it rose strongly on Friday against the French franc, prompting intervention by the Bank of France.

The chart shows the two constraints on European Monetary System exchange rates. The upper part based on the European Monetary System, defines the cross rates within which no currency (except the lira) may move more than 2% per cent.

The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

MITI's new draft legislation for depressed industries is designed as the successor to a 1978 law covering some of the same industries which expires in June this year. The new MITI legislation duplicates provisions for capacity scrapping contained in the earlier law but differs in the stress it places on group formation within depressed industries.

MITI's advocacy of marketing and production groupings as a solution to the problem of depressed industries brought it into conflict with the Fair Trade Commission (FTC).

The seven industries covered by MITI's draft legislation are electric furnace steel-making, aluminium

smelting, synthetic fibres, chemical fertilisers, ferra alloys, paper and petrochemicals. All seven have been suffering acutely during the past two years from energy or raw materials costs that are out of line with those in other countries or from declining demand.

In the extreme case of the aluminium smelting industry, the cost of the electric power required to produce one ton of metal in Japan is currently about 65 per cent above the world market price.

The agreement on consultation will oblige MITI to inform the FTC of proposals for forming groups as and when it hears about them from the private sector. If the FTC objects to the proposals, the two ministries will hold discussions with the FTC preserving an ultimate right of veto. The FTC will also have the right of retrospectively vetoing joint ventures or groupings which it thinks have ceased to be justified because of changed circumstances in the industry concerned.

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The groupings that MITI appears to have in mind include the use of common marketing channels by companies producing similar or identical goods and arrangements under which one company in an industry

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Marketing, Page 2; Lex, Page 14

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Car sales up, Page 6

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## OVERSEAS NEWS

JDF Jones and Bernard Simon on the background to Pretoria's financial measures

### South Africa makes a gesture of confidence

**SOUTH AFRICA'S** economic planners have frequently been criticised for their caution. But the weekend decision to abolish exchange controls over non-residents and re-establish a single exchange rate for the rand is remarkable for its boldness.

For the first time in more than two decades, foreigners will be free from today to transfer funds in and out of the country at will at a single exchange rate which has been increasingly responsive to market forces. No longer will capital outflows be penalised by having to be channelled through a separate investment currency, the financial rand, whose discount to the commercial exchange rate has ranged between 9 per cent and 30 per cent in the past year.

Because of the South African authorities' reputation for being too little too late, the measures have caught many by surprise. In 1980, Pretoria allowed the boom in the gold price to distort the domestic economy by doing nothing to counter the huge build-up of liquidity. But the lesson has been learned, and the governor of the Reserve Bank, Dr Gerhard de Kock, has frequently made it clear that the same mistake will not be made again.

The circumstances are very similar now to those prevailing in the late 1970s. A sharp rise in the gold price has caused a dramatic turnaround in South

Africa's balance of payments. Just a year ago, when the gold price was tumbling towards \$300 an ounce and imports were soaring, the current account deficit reached an alarming annual level of R6.9bn (£4.2bn). That was the first quarter.

Now, the surge in the gold price and a drop in import demand have pushed the deficit down to less than an annualised R1bn in the third quarter of last year and, according to the Reserve Bank's senior deputy governor, Dr Chris Stals, the current account moved to an annualised surplus of around R1bn between October and December.

The increase in domestic liquidity and expectations of a further rise have been reflected in a sharp fall in interest rates. The rate on three-month Treasury bills has tumbled in the past four months from over 16 per cent to around 11 per cent.

The liquidity position has been aggravated by heavy overseas borrowing by South African companies. Convinced that the high gold price would keep the rand strong, they have rushed to take advantage of low U.S. and European interest rates, often without bothering to cover their repayments forward. The money supply rose at an annual rate of 14 per cent in the final three months of last year, bringing the increase for

1982 as a whole to 17.4 per cent. This is well above the 12-13 per cent target set by the International Monetary Fund last November when it approved a £1bn SDR (\$1bn) loan package. That was the first quarter.

A prime objective of loosening of exchange controls is thus to begin draining some liquidity from the economy. The South African authorities are not worried that the outflow might become a flood.

"Our only reservation was what might happen in Soweto," Dr Stals told the FT, referring to the danger of political instability which might prompt many foreigners to take their funds out as fast as they could.

The two-tier exchange rate was introduced in 1981, primarily to counter a capital flight following political unrest in the wake of the Sharpeville killings. "We must take the risk," says Dr Stals. He adds: "We're doing it from a position of strength."

Thanks to the improvement in the trade and invisibles balance, the Reserve Bank has been able to pay back large chunks of the foreign loans it negotiated in 1981 and 1982 to shore up the reserves. Its foreign liabilities have plunged from more than R2bn in mid-1982 to less than R200m at the end of January.

In other words, Pretoria has access to considerable support if the

outflow becomes a flood. It seems likely that the bank is prepared to use both its reserves and the exchange rate to soften the blow.

"There will be some depreciation of the rand," Dr Stals said yesterday.

He is believed to have told business leaders in Johannesburg that the rand is likely to fall to around 87-89 U.S. cents today, compared with Friday's close of 92.90 cents.

How big will the outflow be? No one can predict that with any accuracy, but there is little doubt that it will be substantial. Investing on the Johannesburg stock exchange is suddenly no longer as attractive to foreigners as it was last week. Foreign investors have, up to now, been able to use financial rands to buy shares, but were allowed to receive dividends through the commercial banks. Holdings on South African shares will thus no longer be as high as they were, although the impact of the lower commercial exchange rate on gold mine earnings—because the gold price is denominated in dollars—will to some extent compensate.

The extent to which investors in South African commerce and industry now decide to get out will depend mainly on their perception of the country's political future and the chances of exchange control being reimposed in the future. The credit of course, belongs as so often before to the gold price. Last week, in the jinketing surrounding the opening of the new parliamentary session in Cape Town, Mr de Kock was asked—now that it was ancient history—that he had suffered a moment's anxiety when the gold price actually dipped below \$300 last June. Today, with gold trading around the important \$500 mark, he can be forgiven for looking cheerful.



Shultz...Brought invitation from Reagan

### Shultz optimistic after Peking talks

By Tony Walker in Peking

**MR GEORGE SHULTZ**, the US Secretary of State, left Peking at the weekend, claiming that his tour-day visit had contributed to renewed Sino-American co-operation.

At a farewell banquet in his honour, Mr Shultz hinted "while problems do exist, I leave no discussions more convinced of the real opportunities for enhanced cooperation...in a host of fields."

Mr Shultz later confirmed that he had brought an invitation from President Ronald Reagan for Zhao Ziyang, China's Premier, to visit the U.S. this year.

It is expected that Zhao will visit Washington in June or September. Mr Shultz also hinted at the possibility of a visit to China by Mr Caspar Weinberger, the U.S. Defence Secretary.

But the Chinese appeared less enthusiastic about progress in the talks, which were the most exhaustive discussions between U.S. and Chinese officials in the life of the Reagan Administration.

Wu Xueyan, China's Foreign Minister, said at the banquet that he had had "useful talks" with Mr Shultz in a "frank and calm" atmosphere. "These talks show our two countries hold identical or similar views on some major international issues, but have differences on others," Wu said.

Mr Shultz said some issues needed to be managed with "great care." He had assured the Chinese that the U.S. took seriously the commitment it had made in last year's joint communiqué to reduce arms sales to Taiwan and intended to abide by it.

China objects to continuing U.S. arms sales to Taiwan, claiming the U.S. action is an interference in internal Chinese affairs. Mr Schulz indicated, however, that as a result of his discussions with Chinese officials, regular defence contacts, interrupted by the Taiwan dispute, would be resumed.

Within hours of Mr Shultz's departure, the official Xinhua news agency claimed that the ceiling set by the U.S. on its arms sales to Taiwan "far exceeded the maximum annual figures published by U.S. Government departments."

The agency quoted Chinese leaders as telling Mr Shultz that unless the Taiwan problem is resolved, mutual trust between China and the United States is out of the question and bilateral relations cannot possibly develop on a sound basis."

Mr Shultz's talks with the Chinese focused on the possibility of sales of U.S. nuclear technology to China. This issue is likely to be discussed by Mr Malcolm Baldrige, the U.S. Commerce Secretary, when he visits Peking in May.

Renter adds from Seoul: Mr Shultz pledged continued military support for South Korea after arriving in Seoul yesterday and increased tension with the north over U.S.-South Korean manoeuvres.

### Beirut ceasefire plan fails as fighting worsens

BY NORA BOUSTANI IN BEIRUT

FIGHTING between Druze and Christian militiamen in the hills east of Beirut intensified yesterday and a planned largely-arranged ceasefire collapsed as kidnapping and sniping endangered mountain roads.

Sixty people have been killed in clashes involving the Phalange-dominated Christian "Lebanese Forces" and the Druze fighters of the Progressive Socialist Party in the past week.

Voice of Free Lebanon, the radio station speaking for the right-wing Christian militia, insinuated that the deterioration was intentional. It accused the Israelis of allowing leftist PSP gunmen to pound Western neighbourhoods of the mountain resort of Aley while preventing the Lebanese forces from leaving their barracks to repel the Druze offensive.

On Saturday a car bomb killed 20 people and wounded over 100 more at the Palestine Research Centre and the Libyan News Agency.

The Palestine Research Centre is one of five PLO institutions allowed to stay in Beirut under U.S. guarantees given in return for the evacuation of guerrillas from here. The Lebanese Government has yet to decide on the status of such institutions.

### Hawke drops capital gains tax proposals

BY MICHAEL THOMPSON-NOEL IN SYDNEY

**THE AUSTRALIAN** Labor Party, under its new leader, Mr Bob Hawke, is expected to outline its economic strategy on Thursday, as the campaign for the general election on March 5 gets under way.

Yesterday it became clear that Mr Hawke had bucked away from proposals to implement a capital gains tax, thus robbing the ruling Liberal-National Party coalition partners of a promising avenue of attack.

Mr Hawke had backed away from proposals to implement a capital gains tax, thus robbing the ruling Liberal-National Party coalition partners of a promising avenue of attack.

Mr Hawke reacted sharply to criticism by Mr Fraser that the ALP had not yet presented its economic policy. Labor policy in this area, he said, would be specific and believable.

He added that he expected the Australian Council of Trade Unions fully to endorse Labor's prices and income proposals.

Mr Hawke ridiculed the Government's budget of last August 17, and said the budget deficit for 1982-83 was expected to be at least A\$1bn, instead of the ASI's forecast.

"Certainly the assertion of a temporary wages freeze, of itself, is no substitute for a coherent and rational economic policy," he said.

There is concern in government circles at Mr Hawke's reticence to date, in shying away from contentious issues, with the result that the Prime Minister, Mr Malcolm Fraser, may be keen to widen his attack to include non-economic issues such as state aid, defence, and states' rights.

The election was announced last Thursday—the same day Mr Hawke unseated Mr Bill Hayden as leader of the ALP.

Federal Ministers met in Melbourne yesterday to discuss the major policy speech Mr Fraser is due to make on February 15.

Final details of Labor's economic strategy will be ironed out in talks between Mr Hawke, Mr Paul Keating, the ALP's recently-promoted spokesman on economic affairs, and his predecessor as Shadow Treasurer, Mr Ralph Willis.

Mr Hawke said yesterday that Labor would not introduce a capital gains tax, but that it would use existing laws to "smash the fax avoidance industry." Evidence of widespread tax avoidance in Australia was detailed last year in a Royal Commission report by Mr Frank Costigan, QC, which gravely embarrassed the Government.

The ALP claimed last August that tax frauds perpetrated as a result of the Government's "injusticial response" to evidence of tax evasion had cost between A\$100m and A\$150m (\$17.6m to \$14.5m), while Mr Costigan said the country had suffered a "major fraud in its revenue."

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He added that he expected the Australian Council of Trade Unions fully to endorse Labor's prices and income proposals.

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The motor industry accord, announced by the Finance Ministry, marks the final step in the Government's round of "inflation-fighting" agreements with major industrial groups. All the important sectors of the French economy have now been brought into a contractual framework governing 1983 price rises, the Ministry said at the weekend.

Motor car imports—which captured 30 per cent of the buoyant French market last year—are covered by separate anti-inflation contracts governing distributor margins.

**Zimbabwe rebels killed**

BY OUR HARARE CORRESPONDENT

FIVE dissidents have been killed and 14 captured in Matabeleland in the past few days, a Zimbabwe Government official said at the weekend.

An official announcement mirrored the similarity between the dissident campaign in western Zimbabwe by an estimated 500 dissidents and the guerrilla war waged against the white government in the 1970s.

Government sources speak of schools being forced to close just as they did during the guerrilla war.

Financial Times, published daily except Sunday, and bi-weekly U.S. second class postage paid at New York, N.Y. and at additional mailing centres.

### Japan Air Lines has new position for Super Executive with better hearing, broader shoulders, wider experience, and offering generous benefits.



From April, Japan Air Lines introduce a completely unique class of travel on all our B747s.

Our new Super Executive J' Class makes any executive really feel like a super executive.

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الإحصاءات

## STATISTICAL TRENDS: NIGERIA

## Struggle to restore economic balance

NIGERIA depends on oil for over 80 per cent of its foreign exchange and 80 per cent of its government revenue. Consequently, its economy is closely dependent on the world economy and the state of oil markets. The uncertainty about the price of oil makes the country's immediate prospects unpredictable. Accurate assessments are made more difficult by a lack of reliable data.

Oil exports fell 34 per cent in volume terms in 1981, real GDP by nearly 5 per cent, and this is estimated to have fallen 2 per cent in 1982. Inflation in 1981 was about twice the level of the previous two years. Nigeria ran a heavy current account deficit in 1981, and estimates suggest

Commentary by Our Economics Staff; data analysis by Financial Times Statistics Unit; charts and graphs by Financial Times Charts Department.

a further large deficit in 1982, although they vary substantially. The first stringent round of restrictions did not cut imports as much as targeted, and further controls have been imposed. The fall in oil revenue has also led to cutbacks in planned investments.

The foreign exchange reserves remained quite stable for much of last year, despite consistent external deficits because of long and increasing delays in payments.

Nigeria's external debt, concentrated in long and medium-term public debt, has risen sharply since 1978. Before that, Nigeria had very little recourse to external borrowing. Although the

debt/ratio is still low by African standards, it has shot up as exports have declined.

The most striking feature of the non-oil economy has been the decline of agriculture. While GDP grew by an annual average rate of 6.5 per cent through the 1970s, agricultural growth has only been just above zero. More than half the workforce remains on the land, and population growth has been outstripping that of food production. The real value of Nigeria's non-oil exports has declined by 40 per cent since 1964. Food imports climbed from 8 per cent of total imports in 1968 to 15.5 per cent in 1978.

The decline of agriculture is partly a consequence of the oil boom which caused the Nigerian currency (the naira) to appreciate sharply so that imports increased and workers moved into the urban areas. Although Nigeria was formerly the world's leading exporter of groundnuts, and palm kernels and oils, and the second largest cocoa exporter, its agricultural exports now fall far short of its agricultural imports.

Attempts have been made to change the balance through spending on major infrastructural and other projects—10 per cent of the budget under the fourth National Development Plan was earmarked for agriculture—but this programme is likely to suffer from declining government revenues.

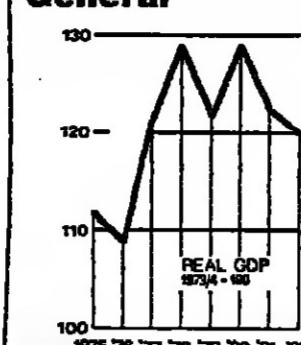
Manufacturing has also faced serious problems from the high value of the naira, in that imported goods are cheaper than locally made ones. Yet because of the scarcity of local materials, manufacturing is very dependent on imports. Any devaluation would tend to increase these costs.

## AGRICULTURAL GROWTH

	Average annual rates % (1964-71 to 1977-79)			
	Total	Per capita		
Food	Non food	Food		
Nigeria	1.7	-1.3	-0.8	-3.8
Zambia	3.0	-0.9	0.0	-3.9
Kenya	2.9	7.5	-0.5	4.1
Senegal	1.0	11.3	-1.6	8.7
Ivory Coast	4.6	1.8	-0.9	-3.7

Source: World Bank

## General



	1980	1981	1982
Exports	12,800.9	10,529.6	7,215.9
Imports	8,716.4	11,276.5	7,800.0
Services (net outflow)	2,176.3	3,653.1	2,254.2
Balance	1,908.6	-4,400.0	-2,140.1
Current account bal.*	1,744.5	-3,149.5	-1,682.9
Net capital flows	+774.6	+882.8	-2,483.6
Current & cap. accts.	2,357.4	-3,950.7	-9.7

\* Different estimates were given in the Budget

Source: Central Bank of Nigeria, estimates by National Planning Office

	1960-70	1970-80
GDP	3.1	6.5
Agriculture	-0.4	0.3
Industry	12.0	8.1
Manufacturing	9.1	12.0
Services	4.9	9.7

Source: World Bank

	1960	1980
Agriculture	71	54
Industry	10	27
Services	19	27

1960-70 1970-80

Growth of labour force\* % 1.8 2.0

Population growth\* 2.5 2.5

Urban growth\* 4.7 4.7

\* Average annual rate.

	1974	1981
Agriculture	30.0	21.0
Mining	18.0	11.5
Manufacturing	4.4	8.6
Construction	10.0	12.9
Distribution	19.6	22.2
Other services	18.0	22.8

Source: Federal Office of Statistics and Budget estimates

## Oil

## CRUDE OIL PRODUCTION

million barrel/day

	1980	1981	1982
January	2,157	2,092	1,754
February	2,148	1,943	1,388
March	2,156	1,868	1,364
April	2,189	1,623	0,999
May	2,141	1,578	1,448
June	2,175	1,528	1,207
July	2,100	0,773	1,259
August	2,049	0,707	1,106
September	1,577	1,061	1,165
October	1,901	1,295	1,489
November	2,062	1,582	1,365
December	2,018	1,784	1,210
Share of OPEC prod. %	6.4	6.7	6.7

Source: Nigerian National Petroleum Corporation and Lagos Chamber of Commerce

## BALANCE OF PAYMENTS

Naira m

1980 1981 1982

Exports 12,800.9 10,529.6 7,215.9

Imports 8,716.4 11,276.5 7,800.0

Services (net outflow) 2,176.3 3,653.1 2,254.2

Balance 1,908.6 -4,400.0 -2,140.1

Current account bal.\* 1,744.5 -3,149.5 -1,682.9

Net capital flows +774.6 +882.8 -2,483.6

Current & cap. accts. 2,357.4 -3,950.7 -9.7

	Annual average rates %	1960-70	1970-80
GDP	3.1	6.5	
Agriculture	-0.4	0.3	
Industry	12.0	8.1	
Manufacturing	9.1	12.0	
Services	4.9	9.7	

Source: World Bank

	1960	1980
Per cent of labour force	71	54
Agriculture	10	27
Industry	19	27
Services	19	27

1960-70 1970-80

Growth of labour force\* % 1.8 2.0

Population growth\* 2.5 2.5

Urban growth\* 4.7 4.7

\* Average annual rate.

	1974	1981
Agriculture	30.0	21.0
Mining	18.0	11.5
Manufacturing	4.4	8.6
Construction	10.0	12.9
Distribution	19.6	22.2
Other services	18.0	22.8

Source: Federal Office of Statistics and Budget estimates

## Finance

Naira

FOREIGN EXCHANGE RESERVES

US \$m

1981 1982

10 8 6 4 2 0

Source: IMF



Source: World Bank

## Trade

NAIRA</

## WORLD TRADE NEWS

**Tom Sealy, recently in Helsinki, on aspects of Finnish-Soviet nuclear co-operation.**

### Venture competes for third country sales

A JOINT Finnish-Soviet group is now competing to build Yugoslavia's next nuclear power station as the first ever East-West co-operative venture in nuclear technology in third countries.

At this stage, the group comprises Finland's state-owned nuclear power company Imatran Voima Oy and the Soviet nuclear engineering enterprise Atomenergoexport. Finland is the only country outside Comecon to operate Soviet-designed nuclear reactors.

The first of these, a Soviet Novovoronezh VVER 440 pressurised water reactor, went into commercial operation in May 1977 and was followed by a second VVER 440 reactor in January 1981. Both reactors are co-located in the same power station at Loviisa on the island of Hauholmen about 100km from Helsinki.

But, as Mr Klaus Raninen, board spokesman of Imatran Voima points out, the Loviisa nuclear power station is by no means a total Soviet project. "It is a joint East-West project," he says. "The USSR sup-

pplied the general process design and the reactors and generators and so on, but Finland provided the architectural and structural design, the actual construction of the buildings and containment and some control instrumentation.

"Other instrumentation, auto-

**'Yugoslavia is regarded as the best first prospect'**

mation and control equipment was supplied by a number of western suppliers. The ice condenser was built under a Westinghouse licence and the whole was supervised and co-ordinated by Imatran Voima."

It is this kind of co-operative venture, combining international technology in a single plant, that Imatran Voima and its Soviet partner now want to sell elsewhere. Yugoslavia is regarded as the best first prospect because it is one of the few countries outside Comecon

with an active nuclear programme but no nuclear engineering industry.

Yugoslavia has only one nuclear plant, a Westinghouse 620MW pressurised water reactor which went on stream at Krsko last October. But the country's nuclear programme calls for up to three more power stations with the first located near Zagreb and the second, probably, in Vojvodina.

But Yugoslavia is also in severe financial trouble, and this throws the whole of its nuclear power programme into some doubt. Also, even if it were to go ahead, the recent U.S.-inspired Western aid package would make it politically difficult for the Yugoslavs to choose a Soviet reactor design over a Western one.

But Mr Raninen still believes the joint-venture has a chance. "I believe we could be very competitive on price and also offer a high level of reliability," he says. "We are getting a consistently high load factor from the Loviisa reactors. In 1981 the Loviisa I reactor had a

load factor of 80.6 per cent and Loviisa II in its first full year of operation, 70.5 per cent. Last year Loviisa I had a load factor of 84.2 per cent and Loviisa II of 77.7 per cent."

A report submitted to the Sizewell nuclear plant inquiry in the UK by the Science Policy

to be sure, I am sure this is a factor in the high reliability of the Soviet reactors."

Another potential advantage for foreign markets is the Soviet agreement to both supply and dispose of nuclear fuel. Under current agreements with the Soviets Imatran Voima buys its nuclear fuel in ready-to-use form from Russia and these supplies are guaranteed for the life of the reactor. Also Imatran Voima only has to store spent fuel for five years. After this time it is returned to the USSR for reprocessing or long-term storage.

Nor will Imatran Voima and its Soviet partner be too disappointed if they fail to get the Yugoslavia's next nuclear power station.

"The Soviets," says Mr Raninen, "tend to use more material than Western designers. In the West the aim is to use as little material as is consistent with safety. If the calculations specify a wall thickness of 3 mm, that is what is used. But the Soviets tend to add on another 2 mm or so just

to can do the same for others."

#### WORLD SHIPPING REPORT

### Recession's oil carrier fleet figures tell a grim story

BY ANDREW FISHER, SHIPPING CORRESPONDENT

TANKERS, especially large ones, have long been among the least sought after vessels by shipowners. This report, after assessing the grim outlook for bulk carriers last week, concentrates on oil carriers.

As the record scrapping and lay-up figures make clear, the worldwide tanker surplus is acute. Sluggish demand for oil in recession has worsened the post-1973 oil crisis problems for tankers.

With newer sources of oil

supply such as the North Sea and Alaska, the big tankers which ply the run from the Middle East to Europe, the U.S. and Japan have become increasingly redundant.

Altogether, last year's tanker scrapping total, including smaller ships below 200,000 dwt, was around 25m dwt—the world tanker fleet, allowing for addition of new ships, dropped from 320m to 301m dwt.

So far, this year has seen no

return of optimism, though a clear fall in oil prices would obviously boost demand and thus chartering rates. Last week, while awaiting stable prices, the market was confused and fixtures were few.

Nor has the market been helped by the mild winter of the U.S. and Western Europe. Instead of importing more oil, companies have been tending to use up stocks.

All this has hit ship values.

Since the Taiwanese reactivated the China Dismantled Vessel

Trading Corporation late last year, the country's numerous breaking yards have operated as one buyer and kept scrap prices low.

Last year's big loser, noted

shipbrokers P. F. Bassoe of Oslo, was the ultra large crude carrier (ULCC) of 300,000 dwt and more; values slumped from \$15m to under \$5m. Just last week, two VLCCs, the 10-year old West German-owned Faust and Westsilen, were sold after lengthy lay-ups for a joint \$7m to London-based Scandinavians.

With newer sources of oil

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### Move to defuse row over new Airbus A320 programme

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

STRONG EFFORTS are being made in Western Europe to defuse the row that has erupted over the industrial programmes of Airbus Industrie, the European airliner manufacturing group, and especially over whether or not to launch the \$2bn A320 150-seater airliner programme.

An article on January 28 in the French newspaper, *Le Monde*, based on a letter allegedly written to the French Government by General Jacques Mitterrand, President of Aerospatiale, the French partner in Airbus, attacked the UK and West Germany for lack of enthusiasm for new ventures.

Subsequently, General Mitterrand, who is the brother of the French President, is reported to have dissociated himself from the Press report, claiming he was misquoted.

M. Bernard Lathiere, president of Airbus Industrie, is planning to hold a Press conference in Paris next Wednesday, at which it is expected he will clarify the group's views on present and future Airbus programmes.

In West Germany, a statement from Deutsche Airbus, the German partner in Airbus Industrie, stressed that internal information in a letter from French Government officials has been over-simplified and used out of context, and therefore has created a false impression.

In the UK, the Government and British Aerospace (which has a 20 per cent stake in Airbus Industrie) are maintaining a discreet silence on the entire affair.

Nevertheless, it is accepted in the UK that the situation, spelled out on several occasions in the past by Ministers and others, regarding to development of the A320 or any other new Airbus programme, remains unchanged.

Government finance can only come when orders have been won, and the prices concerned seem likely to earn profits.

This attitude is paralleled in West Germany. The Deutsche Airbus statement said West Germany would be willing to start the A320 "only when the preliminaries have been fulfilled—first to have some launching orders from reputable airlines and second, assurance of a satisfactory economic outcome."

The view of many in both the UK and West German aero-

### Nigeria revises rules for imports

By Quentin Peel in Lagos

NIGERIA HAS published a revised list of all the goods now subject to import licences as part of the Government's drive to reduce its import bill, and help the balance of payments deficit.

The first licences have now been issued by the committee set up to monitor the system, and virtually all are restricted to raw materials for local industry, according to top officials.

The Nigerian Government is attempting to reduce its total foreign exchange outflow—including both visible trade and service payments—to only N600m (\$554m) a month, just half the level of imports 12 months ago. As part of the effort, every category of goods subject to licence under the new rule has been assigned a specific amount of foreign exchange, officials say.

Although businesses in Lagos welcome the Government's efforts to cut its imports bill to match its domestically reduced receipts from oil, they are worried that spare parts and raw materials for local manufacturing industry will inevitably be cut back as well.

The new list includes only 233 categories instead of 233 in the original list published on January 1, although the principal changes have simply been to remove ambiguities and duplications.

One significant relaxation has been to exempt some forms of construction equipment—including cranes, derricks, earthmoving machines, excavators, fork lifts, pumps and their parts—from the previous blanket requirements. However, all industrial machinery remains subject to licensing.

A further amendment has been to extend the deadline by which importers had to have open letters of credit, in order to escape the new requirement, from December 16-31. All other previous restrictions—such as that goods arriving by sea must reach Nigeria on or before March 30 resultant.

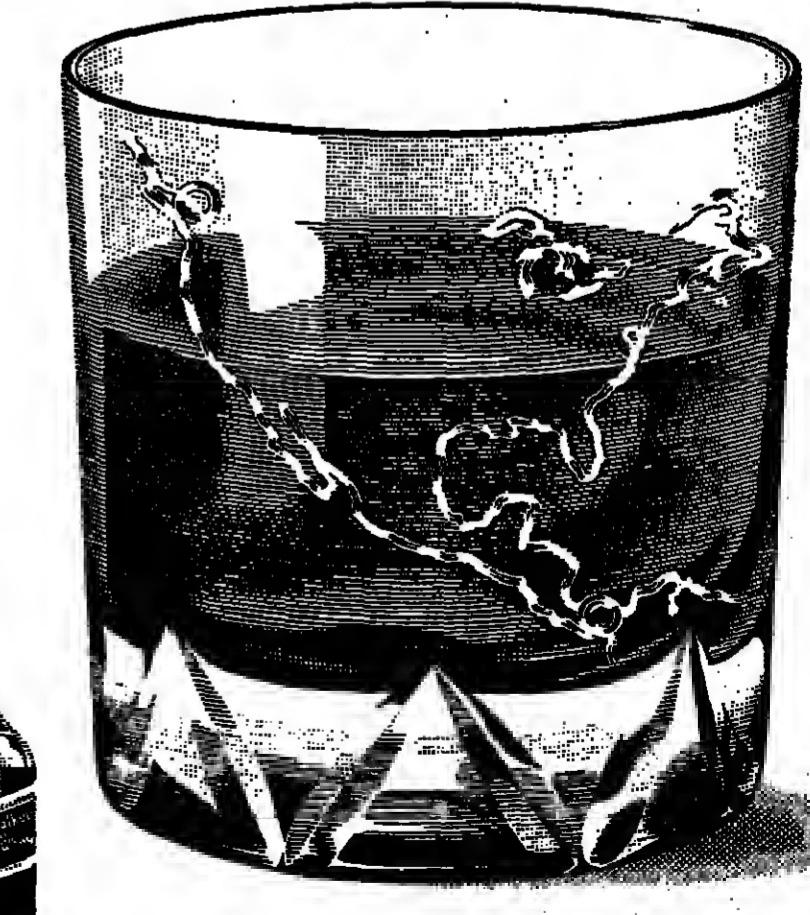
Apart from bringing most goods under licence, the Government's latest efforts include sharp tariff increases for a wide range of goods, intended to protect local manufacturing industry.

However, the increases in Lagos, like those everywhere else, which they say still contain many ambiguities—are likely to cause a very sharp drop in imports in February, before the goods covered by new licences start to arrive. Some manufacturers are already laying off workers.

Some shortages are already occurring in the shops where household equipment like washing machines and spin dryers, and many other items, are already in short supply.

Nigeria's imports bill has dropped from N12.2bn a month in early 1982 to around N800m at the end of the year, but this was more as a result of growing delays in trade payments, than because of the first round of import restrictions introduced in April last year.

### From Vancouver To Panama.



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## UK NEWS

**Lloyd's chief sees new council as insurance for future**

**Q.** Who will be the top person at Lloyd's, in official terms, now that Lloyd's has decided to create the post of chief executive and appoint Mr Davison to the job? Will it be you, or Mr Davison, who has the final say in day-to-day matters at Lloyd's?

**A.** The body that has the final say in day-to-day matters is obviously the council, because they are the governing body. But the chairman is still the chairman. There are two other deputy chairmen and Mr Davison is chief executive and will be a third deputy chairman.

**Q.** To the outside world it now looks as though the chairman of Lloyd's has been stripped of all power, other than the ability to perform ceremonial duties and to act as an ambassador for Lloyd's. How do you perceive your role now and that of the office of chairman?

**A.** Every chairman sees his job differently. I do not think, from the talks that I have had with Mr Davison, that he or I see the chairman being stripped of his powers, in the sense that you implied.

**Q.** The job of chief executive at Lloyd's has never existed before. The pace at which the appointment was made and the type of appointment which was made, suggests that the appointment was sprung on you, perhaps at the instigation of the Bank of England and the Department of Trade?

**A.** No. I would not agree with that statement. As long as I have been around Lloyd's, there have been discussions round the bars, in the underwriting room, and in the Captain's Room, as to whether Lloyd's would not be better off with a more permanent, salaried chairman, who does not have to leave office every two or three years.

**Q.** Why didn't Lloyd's ever act on the recommendations of Lord Cromer for a chief executive in

1969, after Lord Cromer studied Lloyd's affairs?

**A.** I do not know. I was not a member of the committee in those days.

**Q.** Both the Department of Trade and the Bank of England, as well as Parliament have been extremely concerned about the scandals at Lloyd's and have placed Lloyd's under intense pressure to see that these scandals are not repeated.

**How do you think that the authorities have behaved recently, regarding Lloyd's affairs?**

**A.** They are obviously extremely concerned about what goes on, here at Lloyd's. Nobody likes wrongdoing anywhere. And it becomes particularly sensitive in somewhere like Lloyd's which has a big international standing and is a very large earner of foreign exchange for this country. They are obviously concerned that nothing must be done to undermine the confidence of the people internationally who send their business to Lloyd's to be insured.

**Q.** Arguably, if the scandals at Lloyd's had materialised earlier, you might not have got the new self-regulatory powers that you needed from Parliament?

**A.** Possibly. I find it slightly ironic that Lloyd's was castigated for not acting in certain areas of the Howden affair where we honestly believed that we had not got the powers.

But later on, when we took action against Mr Ian Posgate (the former leading underwriter of the Alexander Howden Group who was suspended by Lloyd's) - when we really sincerely believed that we had got the powers to act - we were then told by the High Court that we had not got the powers.

I am not saying that if the troubles had happened in 1983, or we had had new legislation in force at the end of 1981, that the new powers would have been obtained.

early stopped all the things that happened. But certainly we could have moved very, very much faster.

**Q.** Last November, you said in an address to the Insurance Institute of London, that the essential safeguards will have to be that the con-

thing that one does where conflicts of interest do not arise. But we all live with them. Where there is a real conflict of interest at Lloyd's, it is the practice of the committee - and the same is true of the council - that if it is something which is very close to an individual member

the people involved in underwriting here.

**Q.** Are the regulators at Lloyd's competent to judge what is right or wrong in business relationships which they may be maintaining for commercial benefit and which they

And initially you said that the Howden affair did not impinge on Lloyd's.

**A.** No, we have not defined our area of jurisdiction yet. We have not yet dealt with a task force report on the regulation of Lloyd's brokers. I

derwriter has an interest. What can be done to ensure that you have jurisdiction?

**A.** The new procedures, particularly the new auditing procedures, will go a very long way to eliminate that sort of problem. The combination of new disclosure and audit requirements will, I think, resolve the problem. I do not think that anyone can take the view that it is possible to prevent one's fellow human beings from ever committing misdemeanours, crimes or whatever. You can't do it. You just have to make it as difficult as possible.

**Q.** In the United States it has been alleged that the Howden and Minet affairs are the tip of the iceberg. Lloyd's firms deal with questionable characters, and that little cooperation is given by Lloyd's to their authorities when international insurance troubles occur. What do you think of the Americans' response so far?

**A.** I get the impression that the customers of the American brokers are not in the least worried or concerned about Lloyd's.

I think that there are one or two of the professional reinsurance companies who never like to miss an opportunity to decry their competitors, in an effort to get more business.

Most of the business we have lost for the right reason - that we could not agree the terms on which it was offered to us.

**Q.** It has been suggested that some in Lloyd's saw self-regulation as an excuse to do nothing, and maintain the status quo. Can you give assurances that major reforms are to be carried out?

**A.** I can assure you that there is a spirit and determination in this place today - throughout the whole of Lloyd's - to make ourselves the best run, most secure insurance market in the world.



ASHLEY Ashwood

met shareholder and partner in your own underwriting agency.

**A.** Do you think I was wrong when I closed it? No. But with hindsight now, one might have said something else. It was not a one man inquiry. Various other Corporation staff were involved. I carried out the background, having dealt with an earlier dispute between a broker involved and a former member of the broker's staff.

That former employee later made allegations, and, as the other two deputy chairmen were busy, I carried out the investigation. I would have thought that it would have been a positive disadvantage for Mr Cameron-Webb to be investigated by me, as there was not much love lost between us. We are perfectly friendly, yes, but I had been upset when he left my firm a few months after my father died, to start his own business.

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**CEGB delays nuclear reprocessing contract**

**FINANCIAL TIMES REPORTER**

SOME HARD bargaining is taking place between the UK's Central Electricity Generating Board and British Nuclear Fuels over the contracts for the use of the Thorp reprocessing plant at Sellafield in Cumbria, which is likely to become operational in 1990.

This has emerged during the fourth week of the Sizewell B public inquiry, which has been concerned with the nuclear fuel cycle, waste transportation and the measures which would be taken to reduce risks of serious accidents at the proposed pressurised water reactor power station.

The inquiry heard that the board has not yet signed a contract for use of the Thorp plant and that it is planning to build a store to enable irradiated fuel from its advanced gas-cooled reactors to be kept, if necessary, for several decades.

In fact, the CEGB is the only customer to have signed a contract with BNF for use of the Chin Thorp plant, although a letter of intent has been issued.

Contracts have been exchanged with customers in Japan, Germany, Switzerland, Sweden and Italy, who will use about two thirds of the plant's capacity.

**Labour denies decision on N-weapons**

**Financial Times Reporter**

IN BRITAIN, hard commercial bargaining is certainly taking place and the inquiry was told that the CEGB is still considering whether it is getting a better or worse deal than overseas customers.

BNF says that details of contract agreements with overseas customers are confidential. But the CEGB has obtained details and is not willing to sign on the terms so far offered.

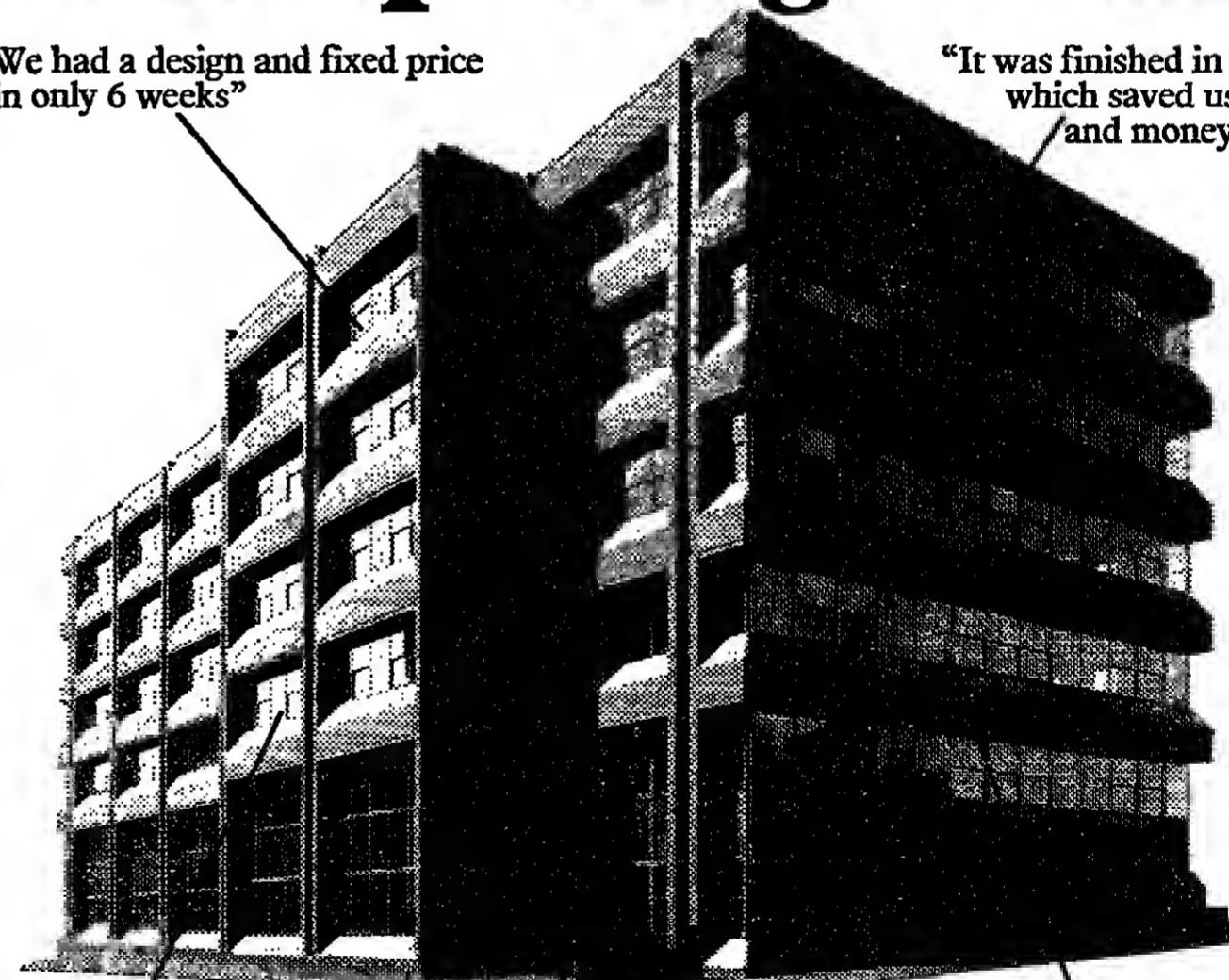
The Thorp plant will repair 6,000 tonnes of irradiated fuel during an assumed lifetime which has, surprisingly, been set at only 10 years. Previous experience suggests that such a plant will last at least 15 years.

BNF says that it confidently expects to be providing reprocessing facilities well into the next century, but no decision has yet been taken on the design, location or timing of the plant needed to succeed Thorp.

While BNF can afford to await the outcome of the Sizewell B inquiry, which will have great bearing on the future of nuclear power in Britain, before making decisions affecting the next century, the CEGB is faced with the prospect of a large amount of irradiated AGR fuel coming out of its nuclear plant up to the year 2010 and beyond.

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## UK NEWS

### Poll will be hard to win, says Heath

By John Hunt

A WARNING that the Conservatives will face a difficult task in winning the general election and that high unemployment may be a central issue was given yesterday by Mr Edward Heath, the former Conservative Prime Minister.

He felt it was dangerous to take the view that the Social Democrats were "going down the plug hole" and would not be a force to be reckoned with.

Mr Heath was doubtful about the possibility of the Chancellor making large income tax reductions in the budget. He felt that it should concentrate on helping industry and boosting orders for capital equipment.

In a London radio interview, he indicated the need for some form of wages policy and said that as the economy picked up there had to be the "closest working relationship" between the Government, employers and the unions.

Once more he called for reflationalary policies to get the economy moving and - in what will be interpreted as a dig at Mrs Thatcher - observed caustically that in some quarters "consensus" had become a dirty word.

### Unions seek more details on unemployment forecast

BY BRIAN GROOM

THE Manpower Services Commission forecasts in a confidential draft of its four-year corporate plan that adult unemployment for Great Britain will stay between 2.9m and 3.3m throughout 1983.

Trade Union Congress (TUC) representatives on the commission have demanded a redraft of the report because they believe it does not say enough about the implications of the estimate or about long-term prospects for the labour market.

They argue that the assumption is gloomier than those contained in

the Government's public expenditure White Paper, published last week, which expected adult unemployment to average 2.74m in 1982-83 and 3.02m in 1983-84.

If the adult jobless total reached a record 3.3m this year, it could mean, with school leavers added, a "headline" total of about 3.5m. Last month's unemployment total was 3.225m, and the seasonally adjusted figure, 3.06m.

TUC leaders have also demanded a fuller account of a forecast in the MSC plan that long-term unemployment, already around 1m, will increase and that married women

and young adults are likely to suffer particularly badly.

British Shipbuilders' plan to shed 1,837 jobs by April now seems set to be achieved largely by voluntary redundancy, according to some union officials. However, mass meetings have voted to reject redundancies.

Meetings of Newcastle, at Govan on Clyde side, and Austin and Pickering and Sunderland Shipbuilders in Sunderland have voted to take any action their negotiators advise. A delegate conference on February 17 will decide the next step.

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### Whitehall dispute may delay cable TV

By Peter Riddell, Political Editor

THE TIMING of the development of large-scale cable broadcasting in Britain has been made uncertain by a Whitehall disagreement about how franchises should be granted.

The dispute, between the Home Office and the Department of Industry, is one of the central issues still to be resolved ahead of the publication, probably just before Easter, of the Government's White Paper on a detailed scheme for cable.

The outcome is critically important both for existing cable operators and for the many consortia with plans for new systems.

The dispute turns on whether franchises for new systems should be approved ahead of the enactment of legislation setting up a new cable authority, which would be responsible for franchising and programme supervision.

The earliest date for such a law would be summer 1984, so that a new authority would probably not be able to issue franchises until the end of that year, or early in 1985.

Consequently, services would not start until about a year later

through its own Brentford and Accord outlets.

Between them, they contributed £1.32m of pre-tax profits on sales of £33.6m in the year to September 30, 1981. Lourho's textile interests were cited by the Monopolies Commission in December 1981 as a reason for rejecting the group's bid for the House of Fraser stores.

The idea of the new scheme is that Lourho would end up holding under 30 per cent of the new group and ICI, which currently owns 49 per cent of CV, would have its stake diluted to under 25 per cent. Mr Hyman, as a major shareholder, would have a seat on the board.

Lourho owns two textile companies: the Lancashire-based David Whitehead, which produces knitted cloth for the motor trade, and woven cloth in Malawi and Zimbabwe; and Lourho Textiles, which makes cotton products and retails them

unless it receives acceptances from 90 per cent of the shareholders by Wednesday's deadline.

The proposed deal with Lourho is the latest plank in Mr Hyman's fight to stop the Vantona bid going through. Last week, he built up his stake in Carrington by buying another 900,000 shares.

Vantona has received acceptances from just over 87 per cent of Carrington shareholders, but Mr Hyman, who is against the bid, owns 7 per cent of the remaining 13 per cent. Vantona has stated that it will not go unconditional on the of

the Government's public expenditure White Paper, published last week, which expected adult unemployment to average 2.74m in 1982-83 and 3.02m in 1983-84.

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## BUILDING AND CIVIL ENGINEERING

### CONSTRUCTION BUDGETS

## Analysts confused by projections

PUBLIC sector authorities may have underspent on their construction budgets by at least £800m to £900m in the current financial year, according to building analysts who have scrutinised last week's expenditure estimate paper.

The figures are in stark contrast to the Chancellor's budget projections last March that public spending on construction would rise by 14 per cent in 1982-83.

### Underspending

In fact the underlying level of underspending might be even greater if the full extent of capital receipts that can be used for new investment in construction is taken into account.

Using the Treasury's own figures, public sector spending on construction is estimated to have risen from £8.5bn to £9.4bn in the current financial year—an increase of 7 per cent.

### Difficulties

One of the principal difficulties in making sense of the expenditure figures is that the Treasury is not comparing like with like when it measures actual spending in one year with projected expenditure in the forthcoming year.

The Royal Institute of British Architects prefers to compare cash projections made 12 months ago for the present financial year with those made for the 1982/84 period.

On this basis, the institute says that cash projection of £10.32bn for 1982/83 is only marginally below the £10.35bn projected for 1983/84.

"After allowing for the effect of inflation the published allocation for 1983/84 is probably about 4 per cent lower in real terms than the allocation for 1982/83," said a spokesman for the institute.

ANDREW TAYLOR

### McDevitt's model job

A £20m project to build 21 new towns in Saudi Arabia not only brought design sub-contract to Thibald Partnership, the London architects, it also resulted in a \$250,000 model-making contract for Mr David McDevitt, until then a £7,500-a-year architectural assistant with the firm.

Mr McDevitt, pictured here with Owen Luder, president of the Royal Institute of British Architects, bid for the contract when he overheard the Saudi scheme's production project manager despair of getting models made in time to meet the building schedule.

Having won the job, he parted with his employer and set to work immediately on "an accelerated schedule." What this actually meant," said Mr McDevitt, "was building and shipping models of the first seven towns in six weeks."

To meet this and other deadlines he had to employ 10 craftsmen—"not all the time, or full time," he explained, "but the need was so pressing that I had to hand the work out to seven different workshops without even getting a price."

British contractors get no slice of this particular action.

Mr McDevitt, "but it is also labour intensive, with no high technology content."

He reckons that this one job put him in the number two spot among UK architectural model makers for some



part of the 18-month contract, and now he is looking for more work. "I have had no promises of more work from the Middle East," he says, "but I am hopeful."

Meanwhile, Mr Luder said at a Design Council exhibition of architectural models that the government should be giving more help to British consultants working overseas on such matters as taxation, support costs and securing prompt payment from the countries concerned.

"This government has done well in helping to secure overseas projects, but this kind of work remains risky and sometimes costly for the architects concerned," he said.

"I sense that some overseas countries who have, in the past, succumbed to the lowest price and in some cases to dubious practices,

are now realising how shortsighted that approach really is."

"However," said Mr Luder, "the fact remains that in a fiercely competitive climate the UK construction industry increased its overseas earnings by 11 per cent to a massive £3.5bn in the last financial year."

NATIONWIDE BUILDING Society has earmarked £200m for investment in direct building in 1983 through a limited company it has set up, the Nationwide Housing Trust. It may add some 1500 new homes to Britain's housing stock this year.

The trust operates by borrowing money from the society as mortgage advances which are repaid when sales are completed. The money is invested in a variety of schemes, almost invariably on land owned by local authorities.

In one case the trust is employing architects and contractors, in another the houses are built by a local house-builder providing a package deal but actually working for

the trust as an contractor without putting up any capital.

At Newtwich in Cheshire the Labour-controlled council would not have sold land to private speculative builders, although it lacks the funds to develop itself. But it was happy to sell it to the NHT, which will put up some 50 houses and flats for the elderly. Clauses in the leases will ensure that no-sales are also to the elderly.

A scheme is already underway at Thamesdown, using local builders Rendell and the NHT is negotiating in Liverpool, Wolverhampton, Milton Keynes, London, Bristol and north of the border in the hope of taking up the full £30m as soon as possible.

At a time when building societies are thinking hard

about their future activities, Nationwide is taking a confident step along the trail blazed in July 1980 by Clive Thorndike of the Abbey National when he set up the Abbey Housing Association as a limited company. Since then Abbey has completed 104 houses, has 400 more under construction and claims 800 are at "advanced planning stage." If all goes well, the end of 1983 should see over 2,000 housing starts, which would not have happened without the societies' initiatives.

According to NHT chairman Sir Herbert Ashworth, direct building rather than competition with the banks is the logical extension of activities for which they should be looking.

## Howe asked to cut house-buying costs

ASSISTANCE for house buyers forms an essential element in pre-budget representations made to Chancellor Sir Geoffrey Howe by two of the construction industry's representative bodies.

Stamp duty should be abolished for first-time housebuyers, according to the Royal Institute of British Architects, which notes that the threshold for liability had fallen from the equivalent of £28,500 in 1974 to £25,000 today.

The National House-Building Council, however, wants the threshold raised, suggesting that it should be higher in London and indexed in line with inflation. The NHBC also said that the £25,000 limit for tax relief on mortgages should be increased.

The stamp duty pita is part of an all-round package which would, says RIBA president Owen Luder, "help small scale enterprises, assist first-time house buyers, encourage firms to employ more people and more new technology. It will," he adds, "stimulate the vast amount of repair work which, in EEC regulations, which would otherwise get in the way."

Energy conservation work, it suggests, should get similar treatment. Other requests include grants for purchases of micro-computer technology, which RIBA implies could be more broadly used among architects, and allowances for abortive expenditure by property developers on architect registration tax, 20 per cent on pro-

fits below £50,000 to help small companies and an extension of the 100 per cent industrial building allowances on factory "nursery units," now limited to workshops of up to 1,250 sq ft.

In the private industrial building sector, RIBA would like to see 100 per cent allowances all round, and at the very least for conversion and improvement work. It also asks that the permissible office content for tax purposes be raised from 10 to 20 per cent "immediately," and that the situation be kept under review.

On the repair, maintenance and energy conservation front, the RIBA also proposes that building, repair and maintenance work by registered traders should be exempted for VAT purposes and that there should be concerted effort to amend EEC regulations, which would otherwise get in the way.

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## Tunnelling in Greece

ZOKOR INTERNATIONAL (UK) has just completed building a 12-ton swing-type excavator tunnelling machine. It will be used to construct the central section of a new spine sewer in Salonika, Greece.

The city lies round the shores of a bay into which many sewers currently discharge. The spine sewer will run parallel to the shore, intercepting these foul flows and taking them to a new treatment works east of the city.

The central section of the sewer tunnel has an internal diameter of 2.44 metres and will be lined with bolted prestressed concrete segmental rings, each one metre wide. The ring moulds are being supplied by Buchan Concrete, Colehill.

Built in Stafford, the tunnelling machine, which costs £300,000, has a hooded shield with tail. The 900 tons forward thrust is provided by nine rams individually controlled to permit accurate steering by the operator, who also drives the excavator suspended from the roof of the shield.

The four-toothed bucket has a break-out force of 12 tons to cope with the strong clays and weak rocks expected on this contract.

The excavator has a telescopic boom which reaches beyond the cutting edge of the shield, and retracts to load the 500 ton wide belt conveyor that carries the excavated material to muck cars on the central track beneath. The rail-mounted conveyor support gantries also carry the 180 hp power pack, and control gear.

Lining segments are taken to the face on flat cars, unloaded by twin electric hoists running on trolley beams running on the conveyor right into the shield beneath. Here they are placed in position with an hydraulic erector system.

Designed by the Greek Ministry of Public Works, the engineers for the sewer project were Comis, Sotiriou, Wilson, an affiliate of Watson Hawksley, High Wycombe. Main contractors, and operators of the Zokor excavator, are J. V. Edok S.A. Eter S.A.

### OVERSEAS CONTRACTS

## £48m hospital in Oman

LAING OMAN LLC, a subsidiary of John Laing International has, in association with Turner Wright and Partners [Oman], and architect, Parsons Brinckerhoff, been awarded a £43m contract by the Oman Ministry of Defence for the turnkey construction of a 154-bed military hospital in the Seeb-Al Khoud area of Oman.

When completed in mid-1985, the hospital will provide facilities for serving officers and their families and will include provisions for possible future extensions to the building.

Cross area of the hospital and its ancillary buildings is 18,300 sq metres, located on a 236,000 sq metres site next to the Muscat/Nizwa highway, about 40 km from Muscat. Construction of the two-storey main building will be of reinforced concrete frame with reinforced concrete frame with additional of precast concrete blockwork and sealed glazing units with hospital streets clad in GRP panels.

Turner Wright and Partners (Oman) have been appointed as overall designers for the project, with hospital planning and architectural work being undertaken by Perry Thomas Partnership Building services detailed design for the hospital is being prepared by John Laing Design Associates.

AYALA of Needham Market, Suffolk, won a £3m contract to fit out the throne room and banqueting hall of a palace being built for the Sultan of Brunel in south-east Asia.

PORAKABIN'S Yorkon building division has won an order worth £2.4m to supply living quarters for a permanent RAF camp on Ascension Island, staging post for the Falklands. The Yorkon buildings—based on a steel frame system for permanent construction—will be constructed from the UK as fully-finished modules, reducing site work to a minimum. Shipment will begin in February and will be completed by June. In all it will provide over 8,000 sq metres of accommodation.

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## TECHNOLOGY

HARWELL SCALES-UP ENRICHMENT EXPERIMENTS

# Laser role in fissile materials

BY DAVID FISHLOCK, SCIENCE EDITOR

**HARWELL** IS scaling up its experiments with lasers for the enrichment of fissile materials. A new Oxford research company, Oxford Lasers, has supplied a pair of novel lasers costing more than £50,000, of a kind developed in the Clarendon Laboratory at Oxford.

The experiments are being conducted in some secrecy. But it is understood that the Atomic Energy Research Establishment is planning to use the new lasers for experiments on enriching uranium as part of its research programme to underpin the activities of the British nuclear industry.

Although British Nuclear Fuels is a partner with West Germany and the Netherlands in Urenco, which is developing and exploiting commercially the gas centrifuge method of enriching uranium, U.S. experiments suggest that the laser process may have a commercial role in the 1990s.

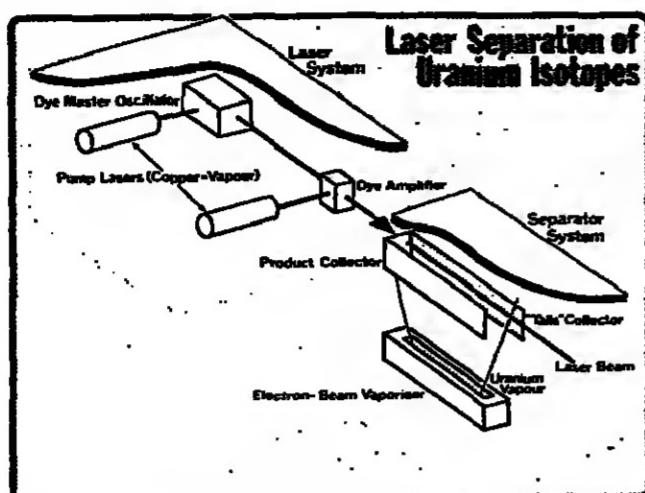
### Method

The U.S. experiments indicate that laser enrichment of uranium may eventually prove much cheaper than the gas centrifuge method. This method is itself displacing the 40-year-old gaseous diffusion process. The experiments also indicate that it may be possible to enrich other isotopes economically, including plutonium—so much more toxic substance than uranium.

Harwell acknowledges only that it is "studying the interaction of laser radiation with various atoms and molecules." The Culham Laboratory of the UK Atomic Energy Authority is also involved in what the authority describes as a "modest" research programme. But it is understood that present experiments are mainly concerned with the commercial potential of enriching uranium levels suitable for nuclear fuel.

Plutonium enrichment would require a very elaborate containment to prevent the escape of plutonium vapour. Harwell experiments back in the 1950s with electromagnetic separation of isotopes of plutonium taught the laboratory just how troublesome it can be.

According to U.S. Government reports, the most efficient approach to laser enrichment is to separate atoms of the pure metal rather than molecules of such compounds as uranium



hexafluoride, the feedstock of commercial enrichment factories today.

This means boiling the metal. Uranium boils at an exceptionally high temperature, exceeding 3,800 degrees C at ordinary pressure. Electron beams are needed to vaporise continuously the metal and produce a feedstock that can be continuously fed into the laser beam, as the diagram shows.

The principle used to distinguish the chemically identical isotopes uranium-235 and uranium-238 is to excite one of them preferentially by photoionisation. The essence is to find a laser that performs efficiently at a wavelength that will excite only the rare uranium-235 atom present in natural uranium at only 0.7 per cent.

The lasers Harwell will be using in its scaled-up experiments have been supplied as a result of close collaboration with the Clarendon Laboratory, one of Britain's leading laser development centres. The Clarendon has about 100 research scientists, almost all involved in some way with lasers.

Oxford Lasers was set up last year by a senior Clarendon scientist, Dr Colin Webb, to manufacture and market research instruments based on his own group's research.

### Possibilities

These are copper-vapour lasers, costing £25,500 apiece. They generate a brilliant green light from a ceramic tube filled with copper vapour, with an unusually high efficiency of

over one per cent. This is the most efficient conversion system yet for visible laser light, Dr Webb claims. Moreover, the combination of a high peak power of 150 kilowatts and a pulse repetition rate of 5,000 per second makes it the most effective system available for pumping dye lasers.

The red dye lasers fine-tune the system to precisely the wavelength required for the greatest excitation of atoms. Once highly excited—ionised—the positively charged uranium-235 atoms can be pulled out of the stream of uranium vapour by a simple electrostatic arrangement. The key to process efficiency, however, lies in the power and efficiency of the pump lasers.

Apart from Oxford Lasers, the only other commercial source of the copper-vapour lasers is a U.S. company, Plasma Kinetics, an offshoot of the U.S. Government's Lawrence Livermore nuclear weapons laboratory in California, where the enrichment technology is also being developed.

But this company is marketing only 10-watt lasers outside the U.S., compared with the 25 watts of mean power available from Oxford Lasers. The reason is probably U.S. Government restrictions on exports of this nuclear-related apparatus.

Nearly £2m have been allocated for this development this year. The present schedule calls for completion of the development module of AVLIS—stomach vapour laser isotope separation—by 1987.

tion to develop a copper-vapour laser having four times as much mean power—100 watts—over the next three years.

He is also studying other uses of these powerful instruments, such as methods of coupling the light into optical fibres for use in surgery. Dr Webb also foresees exciting possibilities for high-power green lasers in "optical radars" for ocean surveys.

The Harwell experiments are being set up in the material physics division headed by Dr Vic Crocker in an open area of the establishment. But they are under conditions which restrict access to the laboratory on the "need to know" basis. This is both because of the commercial potential foreseen for the technology, and because it could be used to enrich fissile materials to the levels needed for nuclear explosions.

The U.S. Government, for example, has contemplated the idea of refining plutonium obtained from spent nuclear fuel to make nuclear weapons by using laser enrichment to separate plutonium-239 from higher isotopes of plutonium which "poison" the nuclear reaction.

### Allocation

Commercially, however, a major attraction may prove to be the very clean separation of isotopes, which enables nuclear fuel companies to separate the fissile uranium-235 isotope economically from the "tailings" from present-day enrichment operations.

U.S. experiments with the enrichment of uranium vapour by lasers have already reached the stage where a development module is being built at Oak Ridge, close to the world's first big enrichment factory. This is in effect a segment of a full-scale production plant, big enough not only to demonstrate the technology fully but to work out the production method and train operators.

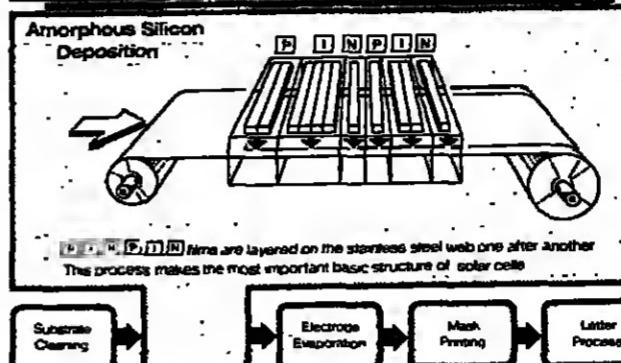
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JAPANESE PRODUCTION PLANT

# Solar cells on a continuous roll

BY ELAINE WILLIAMS

### Production process for amorphous silicon solar cells



THE FIRST plant to mass produce silicon amorphous solar cells started operation last week at Shinjio in Japan. It is run by Sharp-ECD Solar, a company jointly owned by Sharp, the Japanese calculator manufacturer, and a private U.S. company, Energy Conversion Devices.

The plant is based on a single automated machine which produces solar cells on a continuous roll. Its annual output of silicon cells is equivalent to a power generating capacity of 3MW. These cells are used to convert the energy in sunlight into electricity.

Sharp hopes to be marketing its first solar powered calculators based on the new cells by April.

The aim is to produce very cheap solar cells for electricity generation using amorphous silicon, ECD, which developed the machine, has concentrated on amorphous silicon as opposed to the more commonly used photovoltaic material, crystalline silicon, because of its potential for mass production at a low cost.

Amorphous silicon can be laid down in large areas of thin film in a continuous process while crystalline cells have to be sown by hand from a silicon ingot. At present such cells are more energy efficient than amorphous ones in turning sunlight into electricity but are more expensive. Workers throughout the world have been trying to develop cheaper ways of producing all forms of photovoltaic cells.

The machine turns out cells on sheets a foot wide at the rate of one foot per minute.

Within about five years, the company hopes that the larger machine will be able to make cells in a 4 ft-wide roll at 10 ft per minute. Cells from such a machine would be one-tenth the cost of today's commercial crystalline cells and would make them very competitive against other forms of electricity generation for home and commercial applications.

solar cells. Work on achieving this, however, has not been without its problems. It has taken ECD nearly 20 years to reach the production stage. ECD is headed by Mr Stanford Ovshinsky, a well-known but rather controversial figure in the solar power field. The company has lost more than US\$30m in that time and has not shown a profit since 1984.

However many large financial and commercial companies have provided funds for the development. They include names such as Atlantic Richfield and Standard Oil (Sobico). In 1981 Sharp set up a joint venture with ECD for the commercialisation of the cells. The deal was worth an estimated US\$80m.

ECD's solar cells are deposited in a thin film on a stainless steel backing. The company says that the production machine can make solar cells for half the price of the average US\$10 per peak watt retail price of crystalline solar cells.

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### Controllers

# New for industrial presses

A NEW microprocessor-based dual axis back gauge controller for brakes and shears on industrial presses is now available from L.C. Automation.

The software manipulates new packages, called Forecasting Executormodels, can create a series of models to forecast sales of specific products, product lines, or services.

The software manipulates

Total capability in construction.

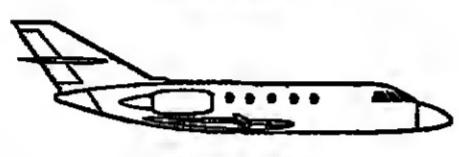
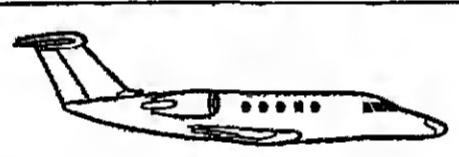


In a typical application the software manipulates new packages, called Forecasting Executormodels, can create a series of models to forecast sales of specific products, product lines, or services.

The software manipulates

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 <b>Learjet 55</b>	 5 ft, 11 in.	400 ft.	2,470 lbs.	2,040 NM
 <b>Hawker-Siddeley 125/700</b>	 5 ft, 11 in.	604 ft.	2,050 lbs.	2,220 NM
 <b>Citation III</b>	 5 ft, 8 in.	438 ft.	2,072 lbs.	2,100 NM

There was a time when the very notion of a corporate jet aircraft was altogether outlandish.

Then along came the Learjets, the Falcons, the Sabreliners, the Jet Commanders and the Hawker-Siddeleys. And demonstrated that the privately owned and operated jet could be as legitimate a business tool as the telephone, the computer, or, for that matter, any modern, automated machine tool in your plant.

In fact, so total was the acceptance of these aircraft by business that, from the passenger's standpoint, they have remained largely unchanged to this day. (Assorted reworkings, upgradings and sundry modifications notwithstanding.)

And that is precisely the problem.

When you send executives across the country to negotiate a deal, or inspect a property, or handle an emergency, or otherwise conduct business on behalf of the stockholders, the purpose of sending them via privately owned and operated aircraft is obvious:

To move them with maximum speed and a minimum of physical and mental discomfort, so they can function better en route and, more importantly, once they arrive.

What has become equally obvious over the years is that the very aircraft they are sent in tend to defeat that purpose.

**The cabins are too small, the engines are too small, the thinking is too small.**

Conventional transcontinental corporate jets may be woefully inadequate, but not willfully so.

Most are simply hostage to the thinking and technology of the sixties, when the original versions of these aircraft were first designed and built.

Back then, you simply could not have a big, comfortable passenger cabin without big, fuel-guzzling engines to go with it.

You simply could not have decent trans-

continental range without a mailing tube for a fuselage and a good, stiff wind at your back.

Since such shortcomings were literally designed into the aircraft of that period, there seems little sense in trying to overcome those shortcomings with what are essentially those same aircraft.

Particularly when you consider what modern technology has wrought in the interim.

### **The Canadair Challenger 600.**

**Now you can operate a big transcontinental corporate jet for little more than the cost of a small transcontinental corporate jet.**

Hard to believe?

Maybe not so hard when you take into account the fact that at least 15 years passed between the introduction of most other transcontinental corporate jets and the introduction of the Challenger 600 a mere two years ago.

The Challenger, in other words, represents a decade-and-a-half leap in technology, including such advances as the use of new, lightweight composite materials, chemically milled aluminum sheeting for more weight reduction and the mating of the new Avco-Lycoming high-bypass turbofan engines with an advanced technology wing for extreme fuel efficiency.

What results is not just an extremely economical aircraft, but one that happens to contain a passenger cabin measuring eight feet, two inches wide at the centerline. A full two feet wider than the Falcon 200. Two feet, three inches wider than the Learjet 55 and the Hawker-Siddeley 125/700. And two feet, six inches wider than the Citation III.

As for range, it is entirely arguable that the Challenger 600, with its 2,800 nautical mile NBAA/IFR range, is the only real transcontinental corporate jet in the lot, capable of making NY-LA non-stop with unfailing reliability. Not to mention a full passenger cabin.

And keep in mind that the benefits of non-stop performance go far beyond non-stop flying.

With a Challenger 600 you can, for example, fly New York to Detroit to St. Louis to Pittsburgh and back to New York without once having to refuel, and with NBAA/IFR reserves still in the tanks.

Clearly, the Challenger's unprecedented combination of size, performance and economy presents you with a lot of new possibilities.

And two choices.

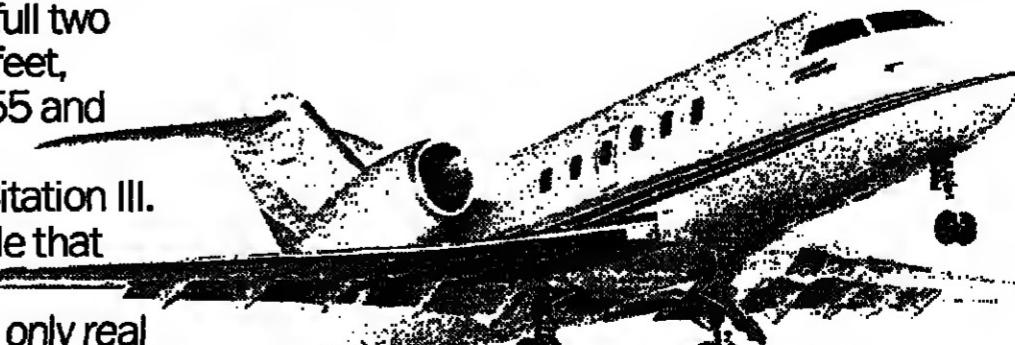
You can struggle along in a cramped, limited-range, limited-passenger aircraft that happens to look inexpensive to run.

Or enjoy the benefits of a quiet, spacious, long-range, more productive aircraft that actually is inexpensive to run.

To find out more about the honestly transcontinental Canadair Challenger 600, just call Mr. James B. Taylor, President of Canadair Inc. His telephone number is (203) 226-1581.

You can drop him a line at Canadair Inc., 274 Riverside Avenue, Westport, CT 06880.

In the Mideast, TAG Aeronautics Ltd. is the exclusive distributor and representative for Challenger sales and support. For further information, contact Adel A. Cubari, Vice-President, TAG Aeronautics Ltd., 149 Rue Charles Bonnet, 1211 Geneva 12, Switzerland. Phone: (022) 46 17 17. Telex: 289 084.



**canadair  
challenger**

## THE MANAGEMENT PAGE

Wadkin took a major risk in overhauling its product range. Ian Rodger reports

### A revolution paves the way to evolution

**BRITISH** machine tool manufacturers are reacting with varying degrees of speed and success to the onslaught of high quality, low cost Japanese machining centres and CNC machines in the past few years.

So far, there is little evidence of progress, as Japan's share of the UK market in these products continues to rise through the 60 per cent mark.

One UK company that believes it is now poised to succeed in head-on competition with the Japanese is Wadkin, a Leicester-based producer of machining centres and woodworking machinery.

But it has taken nothing short of a revolution within the company. Management has been changed and the product line has been cut to the bone. Even more striking, the products have been totally redesigned and the methods of manufacture completely overhauled.

Assembly and commissioning time, for example, has been cut from 20 to four weeks.

"Having got back from intolerable foreign exchange and cost disadvantages, I think we are now in a strong competitive position," Michael Goddard, chairman since early 1980, says.

Goddard had no sooner committed Wadkin to a £2m capital spending programme in 1980 than markets began to turn sour and a number of exceptional problems arose. Losses last year rose to £1.4m net borrowings nearly doubled to £3.6m while shareholders' funds contracted to £9.2m.

"I've used up a third of my balance sheet on this," he says grimly.

He has also used up considerable good will with investors. The company's shares have tumbled from 165p in 1979 to a low of 35p last year. They have since recovered to over 50p.

Wadkin lost another £650,000

in the first half of 1982 but has finally begun to recover in the second half. "I never dreamt it would be such a rough ride. Had we known, I don't know if we would have gone through with it."

Wadkin's first task was to decide in which area it could be going to survive. We had to look at the kind of company we would need to be rather than working generally on improvements," Goddard says.

The requirement was for a company with a very limited range of sophisticated products on which reasonable margins could be made.

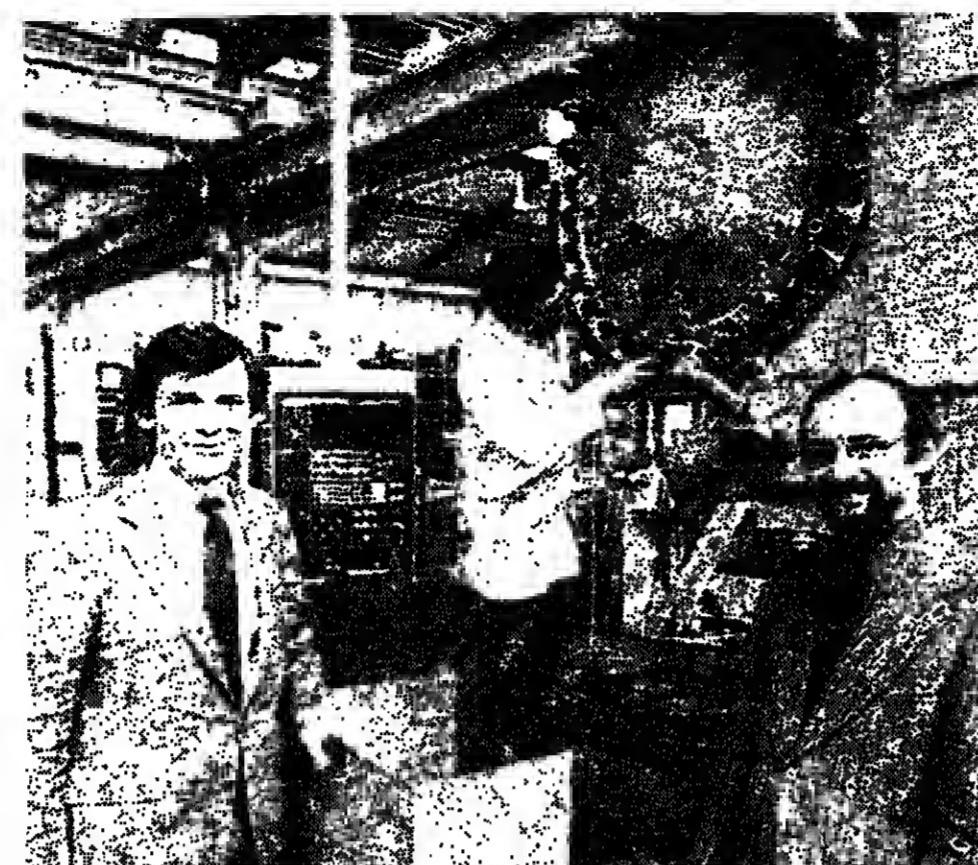
So, out went the rotary and universal milling machines, a radial router and a horizontal machining centre. Out also went the policy of being flexible and responsive to customer demands for special alterations to machines.

"We were wasting a lot of energy engineering special components to customer requests while the Japanese were getting in with standard machines at much lower prices. While the customer was buying one machine to his specification from us, he was buying six standard ones from the Japanese," Goddard says.

"If there is one thing our market research told us, it is that today price is the most important consideration in a machine tool purchase, far more important than all the special things a customer says wants.

"It is very hard to tell a big company, such as British Aerospace, that it can't have this or that extra, but we are learning."

So today there is only one basic vertical machining centre from Wadkin. In two models, with only one make of control-



The range may be small—Wadkin's V5 10 (background) is one of only two models—but at least the customer may have any colour requested. Michael Goddard (left) and Rod Charles redesigned assembly processes to reduce production costs by 27 per cent

ler on them; the customer can have them in any colour he wants.

The next challenges were to get down to Japanese levels and the machines' reliability up to international standards. Price had to be in the range of £70,000 compared with £84,000 that Wadkin had been asking for its previous model.

Rob Charles, production manager, explained that considerable savings were achieved through redesigning a number of components and using new variable speed electric motors rather than gear systems. But the company's main innovation was in the assembly process, enabling it to slash assembly time and so make significant savings in working capital needs.

The conventional method of assembling a machining centre involved adding bits gradually to the frame until the covers are put on and then to test and debug it. The problem with this

method is that each time a defect is found, it is necessary to dismantle the machine to some extent. Wadkin frequently took up to four weeks to debug a machine.

Charles' idea for cutting down assembly time was to build up the machine in discrete units or modules and debug each one before final assembly.

This sounds easier to do than it actually was. In order to debug, say, the tool changing unit thoroughly, all the mechanics and electronics related to it had to be relocated into one unit. Then it could be attached to a simulator which would behave like the rest of the machining centre and so provide a valid test.

Similarly, the control system, the drilling head and the table system all had to be redesigned into units and simulators developed for their testing.

"We think we can take on the Japanese," Goddard says. "The exchange rate is better and we don't have to pay high shipping charges from Japan or pay high sales commissions."

Charles says, "You have to design and develop new products with this in mind, and that is very expensive."

It has paid off for Wadkin, though. Assembly now takes less than four weeks and the final commissioning takes only two days. Goddard claims the result is also a much more reliable machine than its predecessors.

More important, the company has got the price down to £69,500—so that for a machine that has higher performance than the one it charged £84,000 for three years ago. The total reduction in production cost is said to be 27 per cent.

At the current depressed production rate of three per month, the company can break even, and so it is fairly optimistic about the future.

"We think we can take on the Japanese," Goddard says. "The exchange rate is better and we don't have to pay high shipping charges from Japan or pay high sales commissions."

### Grappling with an Apple

"HIT the slash key! No, the slash."

A fluttering of eyebrows: up in surprise and puzzled consternation, then down in disapproving comprehension.

"Enter the command mode . . . for multiply, hit the asterisk . . . if you're entering a formula, use the plus sign . . . and don't forget to watch the status area!"

So the jargon gushes on from our ice-cool executive training person (she'd do well as a sergeant-major). After 15 minutes, we're still just about keeping up with what we're doing. And that's an hour and we've been in an obedient, uncomprehending automatons, punching the keys the instant we're told to, and totally lost as to why it should be this one rather than that. (Not everyone manages to aim straight, anyway.)

Some of the women were violent in their condemnation of computers as destroyers of jobs and skills. But the reaction of the executives (almost none of whom was female) ranged from boyish enthusiasm to displays of strained resignation, as if they knew there was no way to hold back the inevitable.

It was particularly such laggards who had trouble even inserting a floppy disk the right way round, let alone keying the "cursor" into the right place (this is the little rectangular light which indicates where you want the keystrokes to fall).

For unfortunates like these, Apple's much-hyped new "Lisa" computer, and the soon-to-be expected equivalents from IBM and the rest, could prove an enormous boon—provided people can first adjust to its own characteristic oddities. Lisa's so-called "mouse," an

electronic pointer that you can easily push into the right place on a graphic representation of a desk, with all the files clearly named, should remove one of the main barriers to making personal computers accessible to even the most lack-handed: the total reliance on keyboard and coding skills.

Though the Apple person was exaggerating when she claimed that "the most important thing about creating a traditional machine is not computer science, but typing," the Davos demonstrations proved beyond doubt that non-typists certainly have a tough time getting much "out" of today's wonder machines. Without that ability, you're particularly likely to give up in frustration once you discover that the same keys do not always do the same thing; it all depends which program you've loaded.

The key that moves the cursor around when you're using one program will wipe your work off the screen with another, for example. This is not the only reason why using today's generation of computers is downright confusing: difficult things are as easy as pie (though not necessarily apple pie), but many things that ought to be easy are actually damned complicated.

It's still very inconsistent. As the man next to me said when the training person told him what the way to print out an "S" was: "I hit the S key." "Oh come on, can't be as simple as that?" On the other hand, unlike your correspondent, he got the "slash" right first time.

Christopher Lorenz

### Management abstracts

Computerisation is still a calculated risk. P. Isaac in *The Accountants' Journal* (New Zealand), June '82.

After repeating the warning hat first-time computer users may wish they weren't, offers checklists for assessing hidden costs, quality of supplier support and software, and operating characteristics.

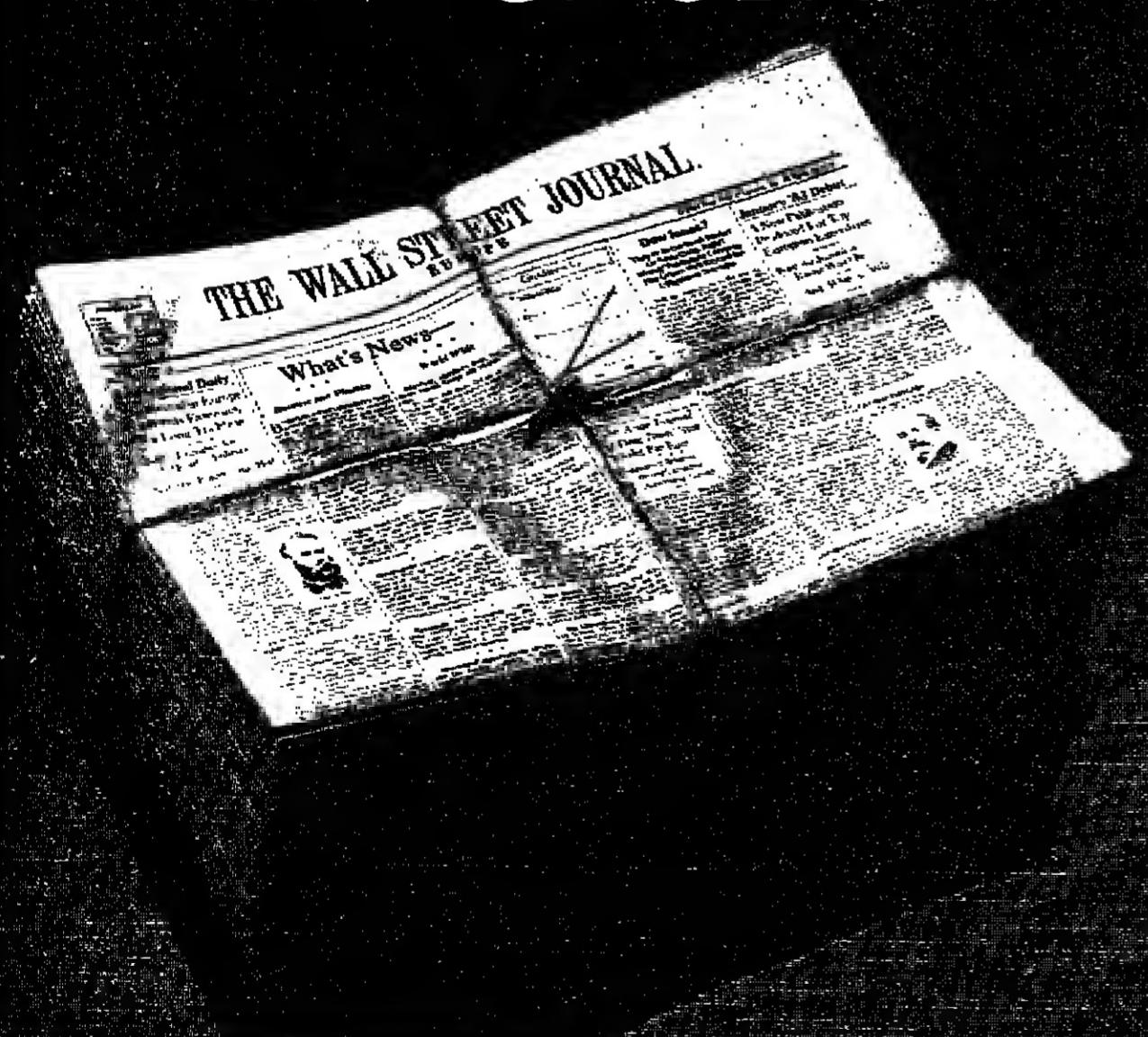
Children and television commercials. N. Stephens and N. A. Stutts in *Journal of Advertising* (U.S.), Vol 11 No 2.

Audio-visual for marketing. T. Mason and others in *Campaign* (UK), 10 Sept '82. Suggests that some

marketers, particularly advertisers, are misusing audiovisual aids; notes that the dictum "garbage in garbage out" applies to computer graphics, and warns that AV offers opportunities galore for over-creativity at the expense of advertising messages. Finishes with a discussion of the use of AV in the production of commercials.

These abstracts are condensed from the abstracting journals published by Anbar Management Publications. Licensed copies of the original articles may be obtained at \$3 each (including VAT and p+p; cash with order) from Anbar, PO Box 23, Wembley HA9 8DJ.

## NOW WE'RE IN BUSINESS IN EUROPE.



You'll probably recognize Europe's newest business daily. It's called *The Wall Street Journal Europe*.

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Plus the American and international business news that you can't find in other publications.

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### To create a really top business class we started at the bottom.



Announcing the arrival of Thai's new Royal Executive Class.

Designed to improve Business Class, we started out where a passenger spends most of his journey.

On his seat.

The result, on our 747 Jumbos, is a First Class seat in every sense of the word.

Bigger. Wider. More comfortable.

Not surprisingly, we needed more room to put them.

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easier because the new seat reclines a full twenty inches.

Enough on seating. On to eating. Part of any great service is serving great food.

In Royal Executive Class we go one better and give you a choice of menus.

So now, you can choose between the Chicken Legs and the Beef Stroganoff.

Served on elegant china with fine cutlery and table linen.

Other niceties in the air include a selection of excellent wines and liqueurs, cheeseboards and baskets of tropical fruit, electronic headsets for your ears and comfort socks for your feet.

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Class counters plus lounge facilities at most airports.

What's more, all this can be enjoyed for just the full economy fare, or a little more on certain intercontinental routes.

Royal Executive Class is also available on our DC10 flights to the Middle East and our A300 routes throughout the Orient.

So even if you change planes, you start and finish your journey in style.

For the ultimate in Business Class, fly Thai's Royal Executive Class.

We think you'll appreciate it from top to bottom.



## THE ARTS

## Orchestre de Paris/Festival Hall

Dominic Gill

When I heard the Orchestre de Paris under Daniel Barenboim at the Barbican last year, I called their performances "unspecial". And it was precisely the same lack of any kind of special or memorable quality which characterised their playing of Brahms's first and second symphonies on Friday evening. Nothing in their interpretations was positive, incoherent; but nothing either was especially vigorous or alert. Everywhere there was a lack of any definition: instrumental colours and combinations were dull; rhythms were foursquare, without zest or spring. Small encouragement to complete the series by listening to their third and fourth Brahms symphonies the following night.

Barenboim has worked hard, and to some extent successfully, to improve the corporate sense of the Orchestre de Paris since he became its Artistic Director eight years ago. But evidently it needs another conductor than to inspire and transform what have been, for as long as I can remember, its fundamental weaknesses — wooden rhythms

## David Copperfield/Northampton

B. A. Young

I'm ashamed to say that I've never been to the Royal Theatre, Northampton, before. It is one little Victorian baroque house, built in 1884 by C. J. Phipps, one of last century's great theatre architects — a man. Sachs wrote in *Modern Opera Houses and Theatres*, who had excelled in his speciality to an extent that can scarcely be appreciated by an outsider. In London, Phipps built the Haymarket and Her Majesty's, among others; the beautiful Theatre Royal, Nottingham is his, and the Lyceum in Edinburgh.

The Northampton house, entered by a deceptively modest frontage, seats about 650 (though in earlier days it's said to have held 2,000!). It has a perfect acoustic and, predominantly good sight-lines. To celebrate its centenary next year, it will have a £400,000 facelift, most of which money has already been found. A rep company has played there since 1929.

Last Thursday it opened in an adaptation by Ian Mullins of David Copperfield, its 35 parts played by 20 actors plus some borrowed local children that are a credit to the local educational authorities. The story is told almost entirely in Dickens's own words, and it sticks firmly to the book, even if it leaves out one or two peripheral incidents. We have a straightforward account of David's life from his birth onwards, through his schooldays, his friendship with the Pickwickians, working at Wick-

field's, his various romances, with little Emily (a charming performance by Lindsey Stagg), idiotic Dora Spewlow, mild-mannered Agnes Wickfield, Kim Wall, an admirable David, provides continuous downstage when necessary. In his role, David is prettily played by Gian Sammarco; after pubbers, Mr Wall cleverly expresses his increasing age without much changing his boyish looks.

On either side, we follow the fortunes of the Peggotts, with Emily's elopement with Steerforth, and the Wicksfields, scandalously swindled by Uriah Heep. How the audience loved the familiar Dickens tags! — "verry umble man," "Barkis is willing," Micawber's basic economy—and bow well it is all worked in. Of the big cast, I found special pleasure in Vlma Hollingberry's Betsy Trotwood, Fred Bryan's authentic Micawber, Paul Beech and Mel Jones as Mr Peggotty and Ham, Glynn Sweet as ginger-haired Heep, Valerie Whittington as Dora, the child-wife. But really I enjoyed them all, with those slightly larger-than-life deliveries of Dickens's slightly larger-than-life lines.

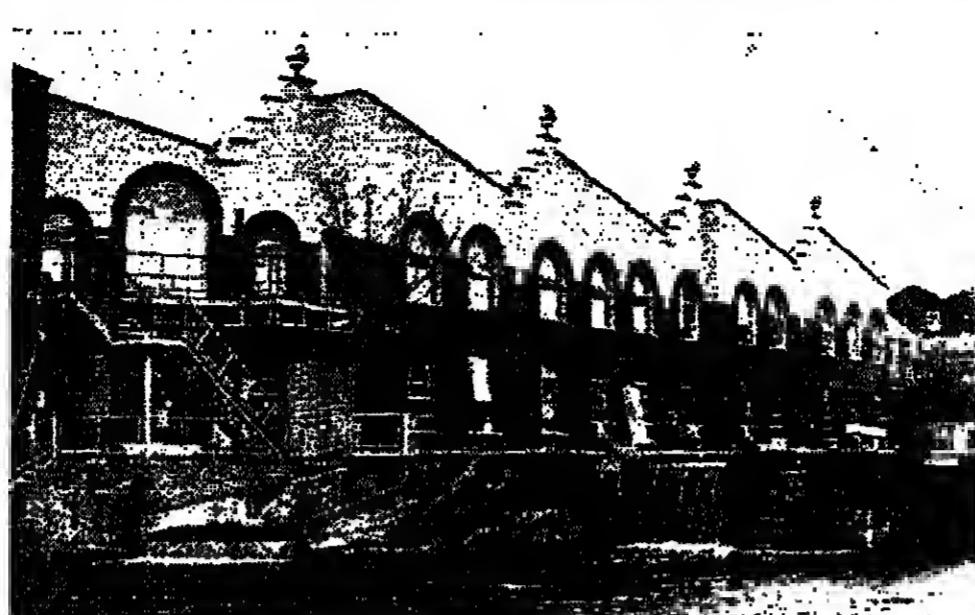
There is a fascinating set by Ray Lett, a skeletal wooden erection that conjures up anything from the Peggotts' nautical dwelling to the Steerforths' patrician home, even magically including the wrecked schooner in which Steerforth dies. (There are more deaths in this than in Hamlet). The director is Michael Napier Brown.

## Arts news in brief

Dickon Reed, senior drama producer for the BBC World Service, has been appointed drama director of the Arts Council. He succeeds John Faulkner, who has been appointed associate producer at the National Theatre.

The inaugural ceremony of the British Federation of Young Choirs is to be held on February 2 at Leicestershire School of Music. Formed to encourage British choral singing, the federation will welcome on its inaugural day Marcel Cornetou, president of the European Federation of Young Choirs.

Next month the Royal Shakespeare Company is to celebrate the first anniversary of the move to its new London home, the Barbican, with a special festival entitled One Year On.



General view over Camden Lock of TV-am's headquarters

## Architecture

Colin Amery

## Flexible roosters at Camden

"Gags, 'sexual chemistry,' froth, showbiz" were the words used by colleague Chris Dubley to sum up his initial impressions of TV-am's first production of *Good Morning Britain*. He might as well have been talking about the new building that has been designed by the Terry Farrell Partnership as both an advertisement and a home for the new, up with the lark, television station.

The headquarters occupies a site alongside the Regent's Canal in Camden Town. The entrance to the glamorous matinée world is a little street between the Favourite Cafe and The Elephant's Head. To counteract the narrow gloom of the approach the street facade is covered in waves of accordian-pleated sheet metal with bands of colour that are graded from red to gold—like the sunrise. The gateway to the morning dreamworld lies beneath a striking suspended keystone — apparently defying gravity, when you reach the canal side of the silver block all is revealed. This is not a new building but an addition to and renovation of 1930 industrial premises and covered walkways. The sun-toothed canal-side facade is now brightly painted and topped by eggs and bacon, the hub of the building. It is quite simply amazing.

It is intended to be a slice through the entire world. At the east end of the narrow

court is the Japanese pavilion where TV-am hospitality is dispensed beneath the sharply raked roof. The floor is laid with a tatami mat patterned in the carpet and guests recline on an appropriately egg-shaped sofa.

Moving west you reach the central atrium which is in the form of one of the ziggurats of Mesopotamia. Four real palm trees signal the move to summer climes. The third and most westerly crossing of the atrium is in the form of a vaguely classical pediment standing in an Italian style garden. Between raked walls the eactus garden is glimpsed reflected in a mirrored wall—symbol of the desert.

All this space is flexible and can be used for TV productions, Angela Rippon can dance between the columns, and Peter Jay could pronounce on the state of the nuclear debate from the scoured desert.

The architect Terry Farrell achieves success because everyone (except for some invisible technicians) is highly visible. The news department is used as the backdrop to the TV transmission of the news and the whole of the atrium can be used for transmissions of all kinds. The two studios are visible through glass panels on a viewing bridge and the managers and directors are all on display in their glass-walled offices. Even Peter Jay bares all with an amazing display wall of trophies—the signed Presidential photograph nowadays takes the place of the stuffed tiger.

Every visitor and employee will, at some point, cross the central atrium on a bridge or climb the main stairs or walk through on the way to the hospitality suite. What it like this sort and hub of the building. It is quite simply amazing.

It is intended to be a slice through the entire world. At the east end of the narrow

## Hope Against Hope/Royal Exchange, Manchester

Michael Coveney

In *Hope Against Hope* Nadezhda Mandelstam documented the last years of her husband's life. There was an arduous effort to keep Nadezhda, for so not only wrote most of it down but also memorised a great deal of it years after it had been composed. This extraordinary love story is not all that well served in its scene where the artist is revealed hard at work at Voronezh: Mr Horovitch's twitches and mumbles and dictates his allegedly complex poetic structures as if planning a shopping expedition.

After Akhmatova (*Dilys Hamlett*) has introduced the cast, her function more or less drops up. The brunt of the evening's narrative is borne by Elgar Alvar as Nadezhda but the material proves curiously leaders and intractable for stage purposes. Explanatory footnotes on peripheral characters and historical events are pumped out by a stolid chorus in greatcauses and beardscarves. Russian folksong, too, comes

steaming off their huddled corporation, most effectively as the Mandelstams board a vessel for exile in the East.

The arrest of Bukharin and the growth of "authorised" literature are the final straws, and we see the Mandelstams bidding from desk to desk to seek refuge from residence in Moscow before bed-hopping in the shadow of the secret police. The perfuminess of the staging, however, is matched by the perfuminess of the story-telling and it is impossible to feel anything resembling involvement in the tragic tale.

As usual, Mr Wrede makes telling use of the theatre's echo, but there is something dispiritingly makeshift about the bare boards and buttonholing style of presentation. Nor does the text, based on the translations by Max Haywood, convince me of Mandelstam's greatness as a poet. It is easier to appreciate the heroism of the wife who died just three years ago.

New versions of Euripides's *The Bacchae* are a favourite ploy. We have seen it in every setting from Nigeria to ladies' lavatory. At the Orange Tree in Richmond we are told firmly in the programme that we are in front of the Royal Palace in Thebes, but in Anthony Cornish's production there is no visual indication of it. The company of 10, wearing clothes of modern cut, are in chairs on an empty stage, moving only to provide individual emphasis rather than dramatic representation.

A new translation is used by Peter Arnott. It falls into strong-rhythm pentameters, but the general feel is narrative rather than poetic. It sounds very well, except for one dissonant intrusion, the word "ayaled" instead of "slew." Pentheus (Peter Guinness) makes his first appearance in

## The Bacchae/Orange Tree

B. A. Young

In fact, what we have is a straightforward presentation of the well-known story. There is no attempt to extract any new interpretation from it; interpretation may be left to the audience. I'm bound to say I have never yet found one that really satisfies me, however much I enjoy the play.

## National Gallery

attendance drops

The National Gallery attracted 2,633,139 visitors in 1982. This represents a slight fall from the previous year's figure which had been boosted by the success of the exhibition *El Greco to Goya* which ran from September 16 to November 29, 1981.

## Arts Guide

Music/Monday, Opera and Ballet/Tuesday, Theatre/Wednesday, Exhibition/Thursday. A selective guide to all the Arts appears each Friday.

## Music

## LONDON

BBC Symphony Orchestra and Chorus with BBC Singers conducted by John Pritchard. *Balkan* (Catalin Profusa) in Farnham and *Mountain Choral Symphony*. Royal Festival Hall (Mon). (522 3191) Philharmonia Orchestra with Vladimir Ashkenazy as conductor and pianist. Prokofiev, Mozart and Strauss. Royal Festival Hall (Tue).

London Sinfonietta conducted by Oliver Knussen with Elaine Barry, soprano, Ives, Finnisys and Granger and first British performance of Peter Lieberson's *Accordance*. Queen Elizabeth Hall (Tue). (522 3191).

Jessye Norman, soprano, accompanied by Geoffrey Parsons, Brahms and Wagner recital. Barbican Hall (Tue). (533 8891).

London Symphony Orchestra conducted by Ivan Fischer with Zoltan Kocsis, piano. Wagner, Rachmaninoff and Dvorak. Royal Festival Hall (Wed).

Royal Philharmonic Orchestra conducted by Owain Arwel Hughes with Ian Hobson, piano. Dukas, Rachmaninoff, Mussorgsky and Dvořák. Barbican Hall (Wed).

London Philharmonic Orchestra conducted by Sir Georg Solti. Wagner, Beethoven and first performance of McCabe's *Concerto for Orchestra*. Royal Festival Hall (Thur).

Walter Klemm, piano. Schubert, Queen Elizabeth Hall (Thur).

Gidon Kremer, violin and Andreas Schiff, piano. Schumann, Schubert, Takahashi and R. Strauss. Wigmore Hall (530 9232).



Wagner: conducted by Zubin Mehta at the Avery Fisher Hall, New York

Romie Scott, Frith Street Alto-saxophonist. Lou Donaldson and his quartet. Ends Feb 12. (439 0747).

WASHINGTON

Concert Hall (Kennedy Center); National Symphony Orchestra, David Zinman conducting. Eugene Istomin piano. Faure, Chopin, Strauss. (Tue, Wed, Thur). (254 5776)

CHICAGO

Orchestra Hall (220 S. Michigan); Chicago Symphony, Claudio Abbado conducting. Cecilia Licad piano. Stockhausen: Gruppen, Rachmaninoff: Piano Concerto No. 2 (Thur). (435 8122)

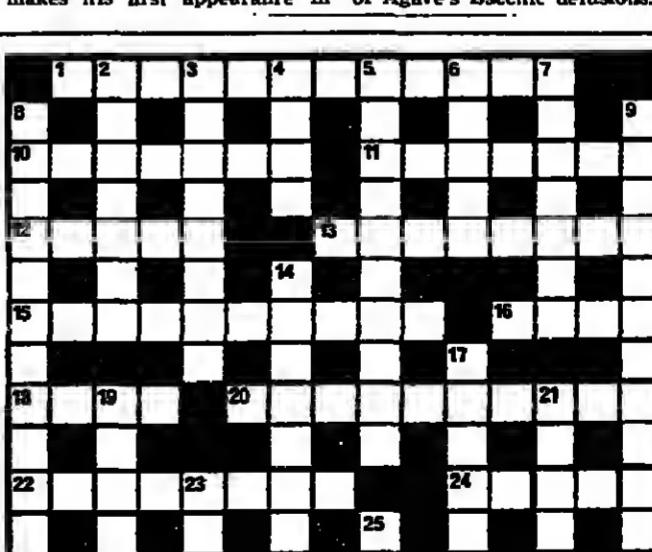
VIENNA

Avery Fisher Hall: New York Philharmonic, Zubin Mehta conducting. Mstislav Rostropovich, Daniel Barenboim, Zubin Mehta conducting. Hildegard Behrens soprano. All-Wagner programme (Thur). (674 2242)

## F.T. CROSSWORD PUZZLE No. 5,091

## ACROSS

- To supply Latin version could be fortunate (12)
- Fumes to inflame (7)
- Stringed instrument, one corresponding to 14 (7)
- Lifting device is hot outside (5)
- Old Mesopotamian says I ran badly (8)
- The withdrawal of soldiers pulling with motive power (10)
- Personal interest in the individual (4)
- Cleanses part of the North Sea (4)
- Delaying tactics may produce universal lib. strife (10)
- Cook takes time to make a foundation (8)
- Common name for a metal-worker (5)
- Choose artist for the daughter of Agamemnon (7)
- Warm up a bird, but it's pagan (7)
- A severe reprimand for preparing bird with feathers (8-4)
- About church 1 exercise acknowledgments (7)
- Blind 1, 'an citizen? (8)
- The cost of an old form of transport? (5-8)
- Instrument for attaching a line to a fish (6, 4)
- Extinctive resistance and excel (8)



Solution to puzzle No. 5,089

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## DOWN

- About church 1 exercise acknowledgments (7)
- Blind 1, 'an citizen? (8)
- A man of the ring? (7, 8)
- The cost of an old form of transport? (5-8)
- Instrument for attaching a line to a fish (6, 4)
- Extinctive resistance and excel (8)

Canada (4, 8)  
6 Cream and gold seen in climbing plant (5)  
7 Our national emblem is employed initially to make a celebrity (7)  
8 A man of the ring? (7, 8)  
9 The cost of an old form of transport? (5-8)  
10 Wages end gratuity in post? (7)  
21 Has writ to amend for transport? (7)  
22 Machine for shaping French and English articles (5)  
23 Part of the face duplicated in greeting (4)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

1	2	3	4	5	6	7	8
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## FINANCIAL TIMES

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Monday February 7 1983

## The challenge for Portugal

**THE DECISION** at the end of last week by President Antonio Ramalho Eanes of Portugal to dissolve parliament and call a general election on April 25 has come none too soon. The record of the two-year-old Democratic Alliance Government led by Sr Francisco Pinto Balsemão, who resigned in December, has been disappointing to say the least.

Its short life has been marked not only by continuous wrangling between the three coalition partners—Sr Balsemão's Social Democrats, the Christian Democrats and the small Monarchist party—but by constant sniping at the Prime Minister by members of his own party. In the end it was the internequins of the Social Democrats, many of whom could not reconcile themselves to the loss of their late leader and his friend Francisco Sá Carneiro killed in an air crash, which led Sr Balsemão to throw in the towel.

The outgoing Government will be remembered mainly for its reform of the constitution, under which the Council of the Revolution, a military body set up in 1976 that could veto parliamentary legislation, was abolished.

The constitutional changes, by strengthening the powers of parliament, should have opened the way to a number of much-needed economic measures. In particular urgent steps were required to deal with the problems of the loss-making and debt-ridden public sector, swollen by the revolutionary nationalisations of 1975, the rapidly deteriorating balance of payments and spiralling inflation.

### Failed

It was certainly the Balsemão Government's main failing that, in spite of the good intentions of the Prime Minister and one or two of his ministerial colleagues, it has failed dismally to grasp the economic nettle and has left Portugal in serious straits.

The outgoing Finance Minister has claimed that the nationalised industries have cost the country as much as Esc 900bn (about £6.3bn) since they were brought under state control in 1975. Yet plans to set up an institute of financial management of the public sector and to open up some of the nationalised industries have cost enterprise to make them more

competitive have not materialised.

Though genuine efforts were made by the authorities to control inflation through tighter monetary policies (credit controls and temporary price freeze in the summer of 1982), too many exceptions were permitted to make them effective. The state's financing was not subject to credit ceilings and public enterprises could borrow as much as they wished abroad.

But despite the successful rescue operations arranged in recent months for Mexico, Argentina, Hungary, Brazil, Peru and Chile, along with more than a dozen lesser borrowers, the developing world's \$500bn mountain of debts remains as precariously balanced as an inverted pyramid. The chances that anything can be done about this underlying problem by the IMF in its present form are strictly limited.

The disparity between IMF

resources and the size of global

debt is calling for new attitudes

and new techniques at the Fund,

as it is forced to concentrate its

attention on developing

countries with huge and un-

stable commercial borrowings

instead of the industrial coun-

tries like Britain and Italy,

which were the kind of clients

it was primarily designed to

serve.

This week the 24 finance

ministers who make up the

IMF's interim committee meet

in Washington to reduce this

disparity by providing the fund

with more resources. Even if

the committee agrees to boost

the IMF's quotas by around 50

per cent to about \$50bn—and

there is still plenty of scope

for argument on the extent and

distribution of this increase—

this decision will end only the

preliminary phase in a re-examination of the IMF's role.

This began last autumn when

the world's attention was sud-

denly seized by the near-panic

in the banking community as

it's imploded the possibility of

a Mexican default.

At the simplest level, even

the \$40bn of new money which

governments are expected to

pledge to the IMF will make

only a small dent in the de-

veloping countries' debt prob-

lem. Much of this money will

never even be usable for lend-

ing because IMF members pro-

vide 75 per cent of their

subscriptions in their own

currencies—and there is

obviously no point in lending

one struggling country the cur-

rency of another which is itself

in equal financial straits.

Furthermore, there is always

the possibility that some major

industrial countries may need

to turn to the Fund again, as

several did in the 1970s.

But even without these tech-

nical constraints on its lending,

the overwhelming fact would

remain that countries like

Mexico or Brazil, with debts of

\$90bn and the need to refinance

these debts at up to 32 per cent

per year, there is no sign that

the Fund would welcome

such a wider role.

A typically conservative com-

ment from one top official:

"People who want a lender of

last resort role would also want

the power to restrain the banks

from lending." Governments

are very jealous of their powers

and giving this kind of authority

to an international

organisation would really be

changing history. Still, we

could push quite a long way on

the door which are now open.

But none of us can conceive of

an international central bank

happening within our careers

to come."

Nevertheless, the official

concerns that "if we could

anticipate that in two years'

time the world economy would

definitely be growing well, it

would make a lot of sense not

to disrupt countries like Brazil

and Mexico as much as the

current programmes.

These seemingly abstract re-

quests relate directly to the

biggest practical questions

about the IMF's central role in

stabilising the international

financial system.

In coping with current

account deficits, the IMF's

standard prescription—a stand-

by loan to boost the gradually

diminishing foreign exchange re-

serves of the country in trouble

plus an austerity programme de-

signed to improve the trade

balance—was usually success-

ful in restoring a current

account equilibrium and allow-

ing the nation to rebuild its re-

serves (as well as repaying the

IMF) within a reasonably short

period.

Today, however, when a

highly indebted developing

country suffers a deterioration

in its trade balance, its ability

to service its debts is also

threatened. Thus a relatively

small shift in the current

account of the type that might

have been cured in the past

with the help of an IMF standby

loan, can lead to an enormous

flight of capital which is out of

all proportion both to the

original current account setback

and to the IMF's resources.

This raises at least three

fundamental questions:

• Does the IMF need new

powers to regulate international

capital movements and com-

mercial bank lending, matched

by a responsibility for guar-

anteeing the solvency of the

international banking system.

• In other words, should it be

come a worldwide central bank

and a lender of last resort?

• Despite the traumas of the

past year, there is no sign that

the Fund itself would welcome

such a wider role.

The Fund's "philosophy re-

mains focused on the current

account," Mr Witteveen says.

But the instability in the world

financial system today is due

mainly to the developing

countries' capital account im-

balance, while floating ex-

change rates have come to be

dominated not by flows of trade,

but by bugs and rapid capital

movements.

These seemingly abstract re-

quests relate directly to the

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In coping with current

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## FOREIGN AFFAIRS

# Gaston Thorn goes on trial

By Ian Davidson



Roger Taylor

Mrs Margaret Thatcher and Mr Gaston Thorn, President of the EEC Commission at No. 10 Downing Street

THE long-standing argument over Britain's inequitably large contribution to the budget of the European Community, which has at times seemed to be the only expression of Mrs Thatcher's interest in Europe, is beginning to escalate to a new level of excitement. One possibility, which was making a few hearts quake in Brussels last week, is that the European Parliament will vote to dismiss all 14 members of the European Commission, if not at this week's plenary session in Strasbourg then at some later stage this year.

The reason is that the British budget problem has now become entangled in a cluster of other more far-reaching issues. Until last December it was treated as a more or less private tangle about money between the governments of the member states; when the tangle was over, the financial rebate to the UK was enshrined in a supplementary budget, and that was supposed to be that.

However, in December the European Parliament rejected

## Britain's budget is now entangled in other issues

this supplementary budget on the grounds that this financial juggling was playing fast and loose with the principles of the Community. If supplementary expenditures were to be made in Britain, not only must they be made for specific purposes consistent with Community policies, but Community policies must be developed to provide a permanent solution to the British problem in place of the temporary haggles.

After the initial shock of the vote, Sir Geoffrey Howe, the British Chancellor of the Exchequer, warned darkly that the UK might take unilateral (that is, unconstitutional) action to deal with the budget problem, by simply withholding payments to Brussels. But calmer views prevailed, and last week the Council of Ministers adopted a new supplementary budget, in which a large proportion of the British rebate is earmarked for energy

projects. British officials profess to be pretty confident that this time round the supplementary budget will get through the Parliament, if not at this week's session then at the following plenary in March.

If so, the Parliament will have killed two birds with one stone: it will have extended its rather limited powers over the Community budget and it will have exerted some effective influence to push the balance of Community spending away from agriculture, which still accounts for two-thirds of the Community budget and which is the underlying reason for Britain's excessive payments.

What is interesting about this confrontation between the Parliament and the Council of Ministers is that it is focusing an extremely harsh light on the debate over the future development of the European Community, not only in terms of its finances, but also in terms of its policy mix. For if there is to be a long-term solution to the British budgetary problem which satisfies both Mrs Thatcher and the European Parliament, there must either be a radical restructuring of Community spending away from agriculture or else there must be a radical revision of the way the Community secures its finances, or more probably both.

The trouble is that it is very hard to see how either, let alone both, of these things could be done quickly. If the EEC agriculture ministers adopt Commission proposals, in this year's farm price negotiations, which are designed to curb the growth of agricultural surpluses, they may be able to slow down the rate of increase of agriculture spending. But it would take many years of this kind of thing to swing the budget balance substantially away from agriculture.

Conversely, it would require an enormous increase in, for example, the regional and social funds, to solve the British budget problem, because the UK is not the only country with a legitimate claim on these funds. In any case, the current financial rules exclude such an enormous increase.

Money for the Community budget at present comes from three sources: Customs duties on industrial products, variable levies on agricultural imports, and national contributions up to a maximum equivalent to a valued added tax of 1 per cent. Some time quite soon probably next year, the Community will be considering whether or not there can be no increase in the Community's financial resources. This has something to do with the fact that Germany is with Britain, the only net contributor to the EEC budget, and with Bonn's increasing reluctance to add to the burden by shelling out more money for the British rebates. But it has more to do with the imminence of the West German elections on March 6, and most people assume, or at least hope, that thereafter Germany will prove to be more flexible.

More recently there has been a palpable blurring of the British rhetoric. For one thing, there will have to be an increase in the size of the budget if the Community is enlarged for the third time to include Spain and Portugal. For another, it is increasingly clear that the combined pressure of the British budgetary problem and the Parliament's structural demands will require changes on both the revenue and the expenditure sides of the Community budget.

Only the German Government remains adamant that there can be no increase in the Community's financial resources. This has something to do with the fact that Germany is with Britain, the only net contributor to the EEC budget, and with Bonn's increasing reluctance to add to the burden by shelling out more money for the British rebates. But it has more to do with the imminence of the West German elections on March 6, and most people assume, or at least hope, that thereafter Germany will prove to be more flexible.

Some of these issues move to centre stage this week. Today in Brussels Mr Gaston Thorn, the President of the Commission, unveils his discussion paper on different options for increasing Community revenue; and tomorrow in Strasbourg he will deliver to Parliament a speech outlining the Commission's proposals for new Community policies during the next two years.

Brussels gossip suggests that

despite explicit disclaimers last December that its vote against the supplementary budget was not an anti-British vote, the member states must make up their minds whether they really intend to let Spain and Portugal join the Community; but even when they do, the adaptation of various internal policies (oil, wine, fruit and vegetables) and the conclusion of the enlargement negotiations will take a year or 18 months; and it is a safe bet that the enlargement cannot be concluded until the enlargement negotiations are either in the bag or have been abandoned.

In short, whatever happens to the supplementary budget this week in Strasbourg, the British budgetary problem will return like the proverbial bad penny at least this year and next.

Even though the implementation of the new financial arrangements is likely to be delayed, the real long-term interest rates will rise again in the early 1980s.

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## INTERNATIONAL CAPITAL MARKETS AND COMPANIES

### U.S. BONDS

### Wall Street divided over outlook for interest rates

TOMORROW the Federal Open Market Policy Committee meets far what is probably its most important work of the year.

The FOMC will review last

year's monetary record and set new guidelines for the current year which Mr Paul Volcker, the Federal Reserve Board chairman, will then deliver to Congress on February 16.

The Committee faces a very difficult task. On one hand it must not choke off an economic recovery with too restrictive a monetary policy. On the other, it must not re-ignite inflation. To make matters harder, it is working with a range of money

U.S. INTEREST RATES  
Week to Week 10  
Feb 3 1983 Feb 10 1983  
Fed Funds wky. av. 8.59 8.44  
3-month T-bills 8.15 8.00  
3-month CD ..... 8.60 8.40  
30-year Treas. bond 11.10 11.07  
AAA utility ..... 12.25 12.13  
AA Industrial ..... 12.00 11.78  
Source: Salomon Bros. (estimates).  
In the week to January 26 M1 rose by \$2.7bn to \$465.9bn.

measures which are at present stuck to pieces.

The new money market accounts introduced by banks in mid-December and early January have created acute distortions in the basic money supply measures M1 and M2.

The full impact of the new accounts will be seen in the January M2 figure to be published Friday. Mr Volcker went out of his way in congressional evidence last week to prepare the markets for an expected \$50bn jump in the M2 figure. He also attempted to calm market fears by indicating that the jump will not concern the Fed or cause an immediate tightening of the monetary reins.

The Fed announced on Friday that it will re-define its broader money aggregates starting this week. The market expects that the Fed will remove the new bank accounts from M2.

This should make it somewhat easier for the FOMC to set new targets for the existing measures although it might have to allow broader targets to accommodate these distortions.

The FOMC is also expected to underline its desire to emphasise

more the broader measures such as M3.

Wall Street's economists are divided over the interest rate outlook. The pessimists, who believe a sharp rebound in bond yields has already started, hold out little hope for further dramatic declines in short-term rates. Last week they were in the ascendancy. Then, however, a series of events in the increasingly frequent light that the recession has bottomed out. No one is ready to say the recovery is here but they took the sharp decline in the December unemployment rate announced on Friday as further evidence of an upturn.

With a recovery, they postulate, will come higher short-term rates, greater concern about a re-kindling of inflation, continuing concern about the Federal budget deficit (even though it is unlikely to contribute to the deficit), accelerating monetary growth, and a further heightening of the dilemma for the Fed. All in all, investors will be acutely cautious.

The not-so-pessimistic, majority, argue, as Mr Philip Braverman of Chase Manhattan does, that "the alternative view should eventually predominate."

They believe that lower interest rates are virtually assured by among other factors, the world recession and the need to restructure international credits. They expect further deflation and a continuing high-level of bankruptcies and point to high real interest rates and weak private short-term borrowing as evidence for their case.

Mr Braverman accepts that for the moment the jury is still out. Last week saw a further decline in bond prices and, for the second week running, a noticeable increase in short-term rates as the market chewed on and eventually somewhat reluctantly swallowed the record \$14.5bn quarterly refunding package.

Against this massive supply of new treasury issues and further gains in short-term rates, prices of Treasury and corporate bonds fell and new corporate issues all but dried up.

Paul Taylor

### RENEWABLE BONDS

### France offers savers first innovation for 60 years

Officials at the French Treasury are paring over details of a new brand of state deficit-financing instruments to be launched soon.

The issues represent the first innovation in state financing for over 60 years, claim the French. The new bonds will not offer the direct indexation of the British "Granny bonds," they will give investors more protection against erosion of capital than can be financed.

The rabbit to be plucked out, at the bat of M. Jacques Delors, the Finance Minister—a key advocate of improving the performance and image of the domestic financial markets—is called the "renewable" Treasury bond.

In line with the Socialist government's strategy of producing capital funds into longer-term channels, the aim of the new product is to divert some of the budgetary financing of the billions of francs which French

investors traditionally hold in short-term savings deposits.

Treasury officials say their search for innovation has been prompted partly by new savings products offered in the UK over the past few years. Although the new bonds will not offer the direct indexation of the British "Granny bonds," they will give investors more protection against erosion of capital than can be financed.

The idea is to launch bonds with maturities of around six years between the classical state bonds of six years and upwards (the latest issue, for instance, last week, was for eight years) and the shorter-term Treasury bonds of less than five years sold to the public since the First World War. These were the last "new" product offered to the market.

The new issues will allow investors to "renew" their commitment after three years by switching to further issues by

market-oriented rates of interest. This will ensure that yields offered to the public do not get too far out of line with the prevailing inflation rate. According to Treasury officials, this should increase the new instruments' attraction compared with the present Treasury bonds sold to the public.

Additionally, the "renewable" issues will have a secondary market maintained by the Caisse des Dépôts et des Consignations. This is the giant state-controlled financing organisation which runs the savings bank network. It will play a major part in marketing the bonds.

Emphasising the experimental nature of the project, officials are giving no figures for the likely amount that could be raised by the issues, which will be launched some time after the municipal elections next month.

David Marsh

### Tenneco Inc. chemical adviser

• TENNECO INC has elected Mr Raymond H. Marks as senior vice president and Dr Edward J. Berack as vice president. Mr Marks will serve as an advisor to senior Tenneco management on chemical affairs and will carry out specific assignments. He will continue as director of Albright & Wilson, a Tennessee-based dairy, and will have his office in Sadie Brook, N.J. Dr Berack will continue as the Tennessee Inc. medical director.

• Mr James A. Wimbush, who joined COLLABORATIVE RESEARCH, INC. as president and chief executive officer has been elected a director and a member of the executive committee of the board. Prior to joining Collaborative Research, Mr Wimbush was president of Edithon, a subsidiary of Johnson and Johnson Co.

• K MART CORP has elected former Michigan Supreme Court chief justice Mrs Mary S. Coleman a director. She was elected to the Supreme Court in 1973 and retired in 1982.

• Mr J. Timothy Corcoran has

been named vice president of strategic planning for United Technologies' GARDNER INTERNATIONAL CORP. He previously served as executive assistant to Mr Harry J. Gray, United Technologies' chairman and president.

• Following the success of the offer by the North Broken Hill Group for ASSOCIATED PULP AND PAPER MILLS, Melbourne, there will be a number of changes at APPM. The non-executive directors, with the exception of Mr Lawrence Ballieu, will resign from the board on February 15. Mr Ballieu, who is managing director of North Broken Hill Holdings, will remain chairman of the new APPM board. Mr Mark Barthwaite, an alternate director of APPM and company secretary of North, will join the APPM board. Mr Wilfred Thornton, managing director of APPM, will bring forward his retirement to February 15.

• McDONNELL DOUGLAS AUTOMATION CO has promoted Mr Eugene T. Horn to vice-president-government services; Mr George F. Mellett to vice-president-discrete manufacturing industry; Mr W. Bradford Ridlon to vice-president-McDonnell Douglas Corporation services; and Mr Bruce Yoder to director-communications industry.

McKenna who was retired. Mr Gunn was vice-president distribution equipment operations.

• Mr C. Barton Groves and Mr Riley M. Epps have been elected corporate vice-presidents of MOND SHAW CORP., Dallas. They will continue as unit presidents of the company's oil and gas operations. Mr Groves directs the company's exploration, drilling and production programmes. Mr Epps is president of the refining and marketing unit based in San Antonio.

• Dr Jack Tillman has been made vice-president—operations of WILLIAMS REALTY CORP. Before joining Williams Realty, he was executive vice-president of Downtown Tulsa Unlimited. Williams Realty Corp. is an operating company of The Williams Companies.

• Mr J. M. O. Liddell has been admitted as a general partner of FAHNESTOCK AND CO., members of the New York Stock Exchange.

• THE NATIONAL BANK OF KUWAIT has appointed Mr Ibrahim S. Dahdouh chief general manager in succession to Mr Gerrit E. Venema, who remains with the bank as adviser.

• Mr Randolph Richmond, ICL's U.S. president

Medical Systems and before that held key positions with IBM and Beckman Instruments.

• Mr Thomas P. Cunningham, Jr. and Mr Neal E. Kotke were elected to one-year terms as chairman and vice-chairman of the CHICAGO BOARD OF TRADE in the board's annual election. Mr Cunningham is sole owner of Cunningham Grain Co and has been a member of the Chicago Board of Trade since 1967. He served as vice-chairman of the exchange in 1980 and as a director from 1977 to 1979. Mr Kotke has been a member of the exchange since 1976. He is an independent trader and vice-president of Agra, Gill & Duffus, Inc. He has served as director since 1981.

Elected to serve three-year terms as directors were: Mr Charles E. Clement, Jr., an independent trader; Mr William F. Evans, president, Staley Commodities International, Inc.; Mr Roger S. Griffin, president, Griffin Trading Co.; Mr Karen Minamihara, general manager, Satoro & Co., Inc.; nonresident Mr John J. Coakley, chairman of the board of Merrill Lynch Commodities, Inc.

• Mr Marc Sabagh has been appointed president directeur général of VICKERS ROME and BRM in France.



This announcement appears as a matter of record only.

### Amsterdam-Rotterdam Bank N.V.

(Incorporated with limited liability in The Netherlands)

**Issue of up to U.S. \$ 175,000,000  
10 3/4 per cent. Notes due 1990  
of which U.S.\$ 125,000,000 is being issued  
as the Initial Tranche**

at an Issue Price of 100 per cent., to be paid  
as to 20 per cent. on 31st January, 1983 and 80 per cent.  
(adjusted for interest) on 29th July, 1983.

Amro International Limited

The Nikko Securities Co. (Europe) Ltd.

Manufacturers Hanover Limited

Commerzbank Aktiengesellschaft

Creditanstalt-Bankverein

Deutsche Bank Aktiengesellschaft

European Banking Company Limited

Merrill Lynch International & Co.

Morgan Guaranty Ltd

Morgan Stanley International

Orion Royal Bank Limited

Société Générale

Swiss Bank Corporation International Limited

Union Bank of Switzerland (Securities) Limited

S.G. Warburg & Co. Ltd.

1st February, 1983

### Downturn for CP Enterprises

By Robert Gibbons in Montreal

WORLD recession and low resource product prices brought sharply depressed 1982 profits for Canadian Pacific Enterprises, the non-transportation arm of Canadian Pacific. Net earnings were C\$150m (US\$121m), or C\$1.65 a share against C\$405m or C\$3.67 in 1981.

Poor performances from some subsidiaries such as Cominco and forest products subsidiaries such as Great Lakes Forest Products and CP, plus some manufacturing operations such as Algoma Steel, were prime reasons for the setback.

Fourth quarter net profits of CP Enterprises, which is 70.5 per cent owned by CP, tumbled to C\$14m from C\$83m a year earlier.

The company said nothing about 1983 prospects but the pulp and paper industry expects only a modest recovery from the deep recession of 1982.

### Membership review for HK exchange

BY ROBERT COTTRELL IN HONG KONG

HONG KONG'S Securities Commission has established a special committee to review criteria for membership of the Territory's forthcoming unified stock exchange. At present Hong Kong has four stock exchanges, one of which is effectively dormant.

Decisive steps towards uniting them were taken in 1980, enabling legislation was enacted and the Stock Exchange of Hong Kong was incorporated.

An inaugural committee was elected in 1981, and the unified exchange expects to open for business in April 1983.

The special committee is likely to be of particular interest to overseas brokers, whose prospects for membership of the new exchange have been obscured by shifts in local sentiment over the last two years.

The company said nothing about 1983 prospects but the pulp and paper industry expects only a modest recovery from the deep recession of 1982.

were allowed associate status, with limited rights.

Over the last two years, however, individual exchanges have in some cases varied their rules to admit to full membership both overseas brokers and corporate entities. Hong Kong has an active overseas broking community, including leading British, American and Japanese houses. The position is complicated further by the ability of individual exchanges to members to assign the benefit of a seat to a third party, and by tie-ups between Hong Kong brokers and overseas interests.

The most notable example of the latter is the 25 per cent equity interest held by America's Merrill Lynch in Hong Kong's largest broker, Sun Hung Kai Securities. Early in 1982 Mr Woo Fat, chairman of the unified exchange, indicated that the attitude towards overseas members might be more liberal than was foreshadowed in the 1980 legislation.

Medical Systems and before that held key positions with IBM and Beckman Instruments.

• Mr Thomas P. Cunningham, Jr. and Mr Neal E. Kotke were elected to one-year terms as chairman and vice-chairman of the CHICAGO BOARD OF TRADE in the board's annual election. Mr Cunningham is sole owner of Cunningham Grain Co and has been a member of the Chicago Board of Trade since 1967. He served as vice-chairman of the exchange in 1980 and as a director from 1977 to 1979. Mr Kotke has been a member of the exchange since 1976. He is an independent trader and vice-president of Agra, Gill & Duffus, Inc. He has served as director since 1981.

Elected to serve three-year terms as directors were: Mr Charles E. Clement, Jr., an independent trader; Mr William F. Evans, president, Staley Commodities International, Inc.; Mr Roger S. Griffin, president, Griffin Trading Co.; Mr Karen Minamihara, general manager, Satoro & Co., Inc.; nonresident Mr John J. Coakley, chairman of the board of Merrill Lynch Commodities, Inc.

• Mr Randolph Richmond, ICL's U.S. president

president of ICL Inc. His U.S. based subsidiary, in this position will direct the company's marketing, service, manufacture and development activities in the U.S., Canada and Latin America. Mr Richmond joins ICL from Chromatics Inc., a manufacturer of computer graphics equipment in Atlanta, where he was president. Prior to that he served as vice-president and general manager of Prizer

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# **NEW YORK STOCK EXCHANGE CLOSING PRICES**

**Closing prices on February 4**

**FINANCIAL TIMES CONFERENCES**

# **AUTOMATED MANUFACTURING — ADOPT OR DECLINE?**

**London, 21 & 22 February 1983**

Under the Chairmanship of Sir Monty Finniston and Joseph Engelberger of Unimation Inc., this conference will examine new manufacturing technologies and the arguments for and against using robots and intelligent machines in manufacturing processes. Speakers will include:

**MR. DONALD GRIERSON**  
**General Electric**

**MR. D. H. ROBERTS**  
The General Electric Company pic.

**THE GENERAL ELECTRIC COMPANY LTD.**  
**MR. C. R. MEYER**  
**Cincinnati Milacron**

**MR. BJORN WEICHBRODT  
ASEA AB**

**ASEA AB**  
**ING CESARE BRACCO**  
**Eist Arto SpA**

**Fiat Auto SpA**  
**MR. DICK DAUBENMIRE**  
**IBM Europe**

*For further details, please contact:*

*For further details, please contact:* The Financial Times Conference Organisation, Minster House, Arthur Street, London EC4R 9AX. Telephone: 01-621 1355. Telex: 27347 FTCONF G.

**Continued on Page 19**

## **AMERICAN STOCK EXCHANGE CLOSING PRICES**

Closing prices on February 1

**Continued on Page 26**

## **NEW YORK STOCK EXCHANGE CLOSING PRICES**

**Continued on Page 2**

Sales figures are statistical. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounts to 25 per cent or more has been paid, the year's high-low range and

**d**-dividends are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

**a**-dividend also extracts **b**-annual rate of dividend plus stock dividend **c**-equivalent dividend **d**-new year **e**-new year low **f**-dividend declared or paid in preceding 12 months **g**-dividend in Canadian funds subject to 15% non-residence tax **h**-dividend declared after split-up or stock dividend **i**-dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting **k**-dividend declared or paid this year, an accumulative issue with dividends in arrears **m**-new issue in the past 52 weeks. The high-low range begins with the start of trading no-next day delivery **P**-price-earnings ratio **r**-dividend declared or paid in preceding 12 months, plus stock dividend **s**-stock split. Dividends begins with date of split **sis**-sales **t**-dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date **u**-new yearly high **v**-trading halved **w**-in bankruptcy or receivership or being re-organised under the Bankruptcy Act, or securities assumed by such companies **wd**-when distributed **wh**-when issued, **ww**-with warrants, **y**-ex-dividend or ex-rights **adis**-ex-distribution **xw**-without warrants **yex**-dividend and sales in full yield **z**-sales in full



**BUSINESSMAN'S DIARY****UK TRADE FAIRS AND EXHIBITIONS**

Date	Venue
Current	International Spring Fair (01-499 7324) (until Feb 10)
Feb 9-10	Business Equipment and Services Exhibition (Bournemouth (0202) 20533)
Feb 10-11	Lasers at Work - A Live Exhibition (0480) 66299
Feb 13-16	International Men's and Boys' Wear Exhibition—IMEXA (031 705 6707)
Feb 14-17	Spring Flooring Fair (02432) 5537
Feb 19-27	Birmingham Post/Evening Mail Boat and Caravan Show (021) 236 3368
Feb 20-22	Video Software Show (01-686 2589)
Feb 22-24	British Yarns Show (Bradford (0274) 490057)
Feb 22-25	Information Technology and Office Automation Exhibitor INFO '83 (01-347 1001)
Feb 26-March 4	3rd International Food and Drink Exhibition (01-486 1961)
March 1-3	Mailing Efficiency Exhibition (01-403 62331)
March 6-8	International Exhibition for the Automotive Parts and Accessories Industry—AUTOPARTAC (0494) 21429
March 8-11	International Powder and Bulk Solids Technology Exhibition and Conference (01-588 5174)
March 21-25	International Engineering Inspection and Quality Control Exhibition—INSPERX (01-643 8040)

**OVERSEAS TRADE FAIRS AND EXHIBITIONS**

Date	Venue
Current	Middle East Electricity and Electronics Exhibition (01-355 8200) (until Feb 9)
Feb 9-12	International Fair for Household Appliances and Components—DOMOTECHNICA (01-730 4845)
Feb 11-14	International Exhibition of Household Goods, Glassware, Ceramics, Software and Gifts—MACFAC (01-342 7829)
Feb 21-25	Environmental Pollution Control Techniques ENVITECH (01-730 4845)
Feb 21-25	Environmental Pollution Control Techniques Exhibition ENVITEC (01-730 4845)
Feb 26-March 2	International Spring Fair (01-734 6543)
March 8-10	The Semicon/Euro '83 Electronics Show (01-353 8907)
March 8-10	9th International Electronics Show and Technical Symposium—SEMICON Europa '83 (01-353 8807)
March 11-16	International Exhibition for the Hotel Catering Bakeries and Confectionery ((0202) 732645)
March 14-17	Computer Graphics Exhibition (01-749 3061)
March 24-27	International Trade Fair for Garage Equipment—AUTOVAK (01-228 2880)

**BUSINESS AND MANAGEMENT CONFERENCES**

Date	Venue
Current	RRG: Advanced reinsurance practice (01-236 2175) (until Feb 11)
Feb 9	Industrial Society: Informing and consulting employees watchpoints for 1983 (01-833 4300)
Feb 9-10	FT conference: Pensions in 1983 (01-621 1255)
Feb 16-17	FT Conference: Foreign exchange risk 1983 (01-621 1255)
Feb 21-22	FT conference: automated manufacturing—adopt or decline? (01-621 1255)
Feb 22	Institute of Directors: International conference (01-839 1233)
Feb 22	Macfarlane Conferences: Tax avoidance prevention (01-837 7438)
Feb 22-23	Oyze IBC: Cleaner technologies—making pollution prevention pay (01-236 4050)
Feb 23	BIM: Profiting from UK sources of supply (Northants (05363) 4222)
Feb 23	CBI: Controlling absenteeism (01-379 7400)

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

**BUILDING SOCIETY RATES**

Every Saturday the Financial Times publishes a table giving details of offers to the public  
For further advertising details please ring:  
01-248 8000 Ext. 3606

**CONTRACTS AND TENDERS****PROCUREMENT NOTICE FOR THE SUPPLY OF PIPING, ELECTRICAL AND INSTRUMENTATION MATERIALS**

Under the coverage of the Bati Ramaz Enhanced Oil Recovery Project whose foreign currency requirements will be financed through a World Bank Loan, Turkish Petroleum Corporation intends to solicit bids for the supply of the following materials:

1. Bulk quantities of pipe, valves and fittings made of carbon steel, stainless steel, epoxy-coated carbon steel, galvanized steel, glass-reinforced polyester resin and polyvinyl chloride.
2. Electrical materials consisting primarily of cable and wire. Cables will include 5.5/10 KV XLPE-insulated, single conductor copper power cables and 0.6/1 kV PVC-insulated, single and multi-conductor copper power and control cables.
3. Miscellaneous instrumentation items including pressure gauges, orifice elements, senior orifice elements with calibrated meter runs, flow and temperature transducers, gauge glasses, level indicators, control valves, level switches and transmitters, pressure controllers and regulators, relief valves, dial thermometers and thermocouples. Preferred vendors will be named for each instrument item.

Manufacturers and suppliers interested in submitting bids for these materials should contact Turkish Petroleum Corporation at the address below before February 26, 1983. Details of tenders will be placed on a bidders' list and will be informed when the bid documents are available. No further advertisement will be made. There will be a certain charge for the bid documents.

**TURKISH PETROLEUM CORPORATION**  
Attention: Mr. Bumin Gurses  
Production Group, Mufafa Cad. No. 22  
Ankara, Turkey  
Telex: 42426 TPAO TR

**REPUBLIQUE ALGERIENNE DEMOCRATIQUE ET POPULAIRE**

(Algerian Popular Democratic Republic)  
MINISTERE DE L'ENSEIGNEMENT ET DE LA RECHERCHE SCIENTIFIQUE (Ministry for Education and Scientific Research)  
DIRECTION DE L'INFRASTRUCTURE ET DE L'EQUIPEMENT UNIVERSITAIRE (Directorate for University Infrastructure and Equipment)  
S/DIRECTION DES MARCHES & CONTRATS (Sub-Directorate for Purchases and Contracts)

**NOTICE OF EXTENSION OF TIME FOR SUBMISSION OF TENDERS**  
Companies and firms interested in the announcements of International Calls for Tender Nos. 20/82, 21/82, 22/82, 23/82, 24/82 and 25/82 "SDMC," which appeared in the national daily newspaper "EL MOUJAHID" on 22/12 and 23/12/82, are hereby notified that the final dates for submission of tenders, initially fixed for 5 and 6 February 1983, have been extended by 15 days.

Interested parties are invited that tender dossiers can be obtained from the: Ministère de l'Enseignement et de la Recherche Scientifique (Ministry for Education and Scientific Research), Sous-Direction des Marches et Contrats (Sub-Directorate for Purchases and Contracts), 1 Rue Bachir Attar, Place de Ier Mai, Alger (Algiers).

BY ORDER OF THE SECRETARY OF STATE FOR DEFENCE

**Sale by Tender High Quality Metal Alloys**

The Ministry of Defence invites applications to tender for the purchase (in approx. 150 lots of varying sizes) of about 600 tonnes of high quality metal alloys (mostly aluminium but also titanium, stainless steel and nimonic) in bar, sheet, plate and tube form. Specifications, quantities and dimensions will be notified with the tender forms.

Applications for tender documents should be made to Ministry of Defence, Procurement Executive (FT), Sales Support 6a/b, Room 1/182, St Christopher House, Southwark Street, London SE1 0TD by 18 February 1983.

**COMPANY NOTICES****ISTITUTO MOBILIARE ITALIANO (IMI)**

25, Viale dell'Arco—00144 ROMA  
The Ordinary General Meeting of the shareholders of the Istituto Mobiliare Italiano, held on January 31, 1983, has appointed:

— permanent representatives:  
Male: Jeanne ARNAUD, residing 75018 PARIS (France)

Male: Pierre HENRARD, residing 53 Impasse de la Haie, 75070 PARIS (France)

Male: Annick LE GALL, residing 75028 PARIS (France)

Male: Jean-Pierre CLEMENT, residing 75028 PARIS (France)

Male: Jean-Pierre CHABOT, residing 75028 PARIS (France)

The Deputy General Manager: EPIFO CAO DI SAN MARCO

Male: Jean-Pierre CHABOT, residing 75028 PARIS (France)









## CURRENCIES, MONEY and CAPITAL MARKETS

### FOREIGN EXCHANGES

#### Hoping for a discount rate cut

By COLIN MILLHAM

Sterling's trade-weighted index was little changed last week, closing at 81.0, compared with 80.9 on the previous Friday. The pound advanced against Coopeoal currencies and the yen, but it was the performance against the dollar that most concerned the financial markets. On Wednesday sterling fell to a record low of \$1.5040-\$1.5050 and finished at 81.15. Oil prices continued to dominate sentiment, but the pound probably gained some support from reports of a likely \$4 per barrel cut in Opec prices, because this removed some of the nervousness about downward spiraling oil prices. The dollar began the week

rather nervously ahead of the presentation to Congress of the US Budget. Eurodollar rates rose to these uncertain conditions and some central bank intervention may have been required to stem the dollar's advance. Concern about next month's German general election and better than expected U.S. unemployment figures also encouraged the dollar's buying at different times, while the Treasury refunding programme had varying influences during the week. A good result to the 10-year note auction pushed down New York interest rates and encouraged some selling of the U.S. currency, but this was tempered by lingering doubts

about the future direction of the markets.

A senior trader at one of the U.S. banks in London was prepared to suggest on Friday that the U.S. discount rate will be cut by 1 per cent in the next two weeks, but warned that he is probably assessing the long-term trend. Perhaps any further dollar advance and continuing bad trade figures may turn attention in that direction once again. It would certainly be a popular move.

#### FORWARD RATES AGAINST STERLING

	Spot	1 month	3 months	6 months	12 months
Dollar	1.5185	1.5171	1.5129	1.5092	1.5043
D-Mark	3.7625	3.7403	3.7122	3.6871	3.6377
French Franc	3.6950	3.6750	3.6550	3.6350	3.6150
Swiss Franc	365.5	364.2	361.4	357.5	350.7

EMS EUROPEAN CURRENCY UNIT RATES			
ECU	Currency	% change	% change
central rates	against ECU	from central rate	adjusted for divergence
February 4			IMI %
Bulgarian Franc ...	44.9704	44.9704	+1.28
Danish Krone ...	5.0681	5.0681	-2.00
German D-Mark ...	2.3337	2.3333	-0.27
French Franc ...	6.1137	6.1140	-1.56
Dutch Guilder ...	2.6228	2.6221	-0.21
Irish Pound ...	1.1223	1.1223	-0.20
Italian Lira ...	1350.27	1320.36	-2.21
			-2.21

Changes are in ECU. Terminals positive change denotes a weak currency. Adjustment calculated by Financial Times.

### OTHER CURRENCIES

Feb. 4	£	€	£
Note Rates			
Argentine Peso ...	83.340	83.200	54.800
Australian Dollar ...	1.0751	1.0758	1.0805
Brasilian Real ...	1.1245	1.1245	1.1245
Finland Markka ...	8.0359	8.0340	8.0340
Greek Drachma ...	1.5160	1.5160	1.5160
Hong Kong Dollar ...	10.0000	10.0041	10.0000
Iraqi Dinar ...	126.40	126.40	126.40
Kuwaiti Dinar(KD)	0.4449	0.4445	0.4419
Luxembourg Fr ...	75.75	75.75	75.75
New Zealand Dlr ...	2.0118	2.0120	2.0105
Saudi Arab. Riyal ...	5.9196	5.9245	5.9415
Uruguay Peso ...	5.0734	5.0734	5.0734
South African Rand ...	1.0333	1.0350	1.0370
U.A.E. Dirham ...	5.7075	5.7070	5.7070
			5.7070

\*Selling rates.

### THE POUND SPOT AND FORWARD

Feb 4	Day's spread	Close	One month	% p.m.	Three months	% p.m.	One year	% p.m.
U.S. ...	1.5136-1.5225	1.5190-1.5200	1.522-1.5226	1.75	1.69-0.64	1.75	1.58-0.64	1.75
Canada ...	1.8686-1.8767	1.8686-1.8768	1.876-1.8786	1.03	1.853-0.43	0.99	1.850-0.43	0.99
Netherlands ...	4.111-4.149	4.113-4.149	4.149-4.150	0.75	4.105-0.50	0.75	4.105-0.50	0.75
Denmark ...	1.1245	1.1245	1.1245	0.00	1.1245	0.00	1.1245	0.00
Germany ...	13.19-13.26	13.21-13.22	13.20-13.21	0.24	13.20-2.21	0.24	13.20-2.21	0.24
Ireland ...	1.1280-1.1368	1.1310-1.1330	1.134-1.1350	0.73	1.134-1.76	0.53	1.134-1.76	0.53
W. Ger. ...	3.75-3.78	3.75-3.78	3.75-3.78	0.00	3.75-5.4	0.00	3.75-5.4	0.00
Portugal ...	1.20-1.25	1.20-1.25	1.20-1.25	0.00	1.20-1.25	0.00	1.20-1.25	0.00
Spain ...	199.00-200.25	199.50-200.20	199.50-200.20	0.80	199.50-200.20	0.80	199.50-200.20	0.80
Italy ...	2.159-2.169	2.164-2.168	2.173-2.175	0.53	2.159-57	0.53	2.159-57	0.53
Norway ...	10.90-10.98	10.92-10.93	10.92-10.93	0.24	10.92-11.12	0.24	10.92-11.12	0.24
Finland ...	11.40-11.45	11.41-11.45	11.41-11.45	0.00	11.41-11.45	0.00	11.41-11.45	0.00
Sweden ...	11.40-11.45	11.41-11.45	11.41-11.45	0.00	11.41-11.45	0.00	11.41-11.45	0.00
Japan ...	368-367	368-366	368-365	0.33	368-225	0.33	368-225	0.33
Austria ...	26.22-26.52	26.40-26.45	26.40-26.45	0.00	26.40-26.45	0.00	26.40-26.45	0.00
Switzerland ...	1.07-1.08	1.07-1.08	1.07-1.08	0.00	1.07-1.08	0.00	1.07-1.08	0.00
Belgian rate is for convertible francs. Financial Franc 76.00-76.10. Six-month forward dollar 1.06-1.06. £ per cent. 12-month 1.08-1.08.								

### EXCHANGE CROSS RATES

Feb. 4	Pound Sterling	U.S. Dollar	Deutschmark	Japanese Yen	French Franc	Swiss Franc	Dutch Guildl.	Italian Lira	Canadian Dollar	Belgian Franc
1.059	1.5190-1.5200	1.5190-1.5200	1.522-1.5226	1.520-1.5200	1.520-1.5200	1.520-1.5200	1.520-1.5200	1.520-1.5200	1.520-1.5200	1.520-1.5200
1.059	1.8686-1.8767	1.8686-1.8768	1.876-1.8786	1.876-1.8786	1.876-1.8786	1.876-1.8786	1.876-1.8786	1.876-1.8786	1.876-1.8786	1.876-1.8786
1.058	4.111-4.149	4.113-4.149	4.149-4.150	4.149-4.150	4.149-4.150	4.149-4.150	4.149-4.150	4.149-4.150	4.149-4.150	4.149-4.150
1.058	13.19-13.26	13.21-13.22	13.20-13.21	13.20-13.21	13.20-13.21	13.20-13.21	13.20-13.21	13.20-13.21	13.20-13.21	13.20-13.21
1.058	1.1280-1.1368	1.1310-1.1330	1.134-1.1350	1.134-1.1350	1.134-1.1350	1.134-1.1350	1.134-1.1350	1.134-1.1350	1.134-1.1350	1.134-1.1350
1.058	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78	3.75-3.78
1.058	11.40-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45
1.058	11.40-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45	11.41-11.45
1.058	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08	1.07-1.08

### MONEY MARKETS

#### Coming out of the doldrums

Financial markets are very quiet at the moment. Equities were fairly cheerful last week, with the Financial Times Industrial Ordinary Index touching a record